

AN INVESTIGATION OF SELF-CONCEPT, TEST ANXIETY  
AND SUPPORT SERVICES AMONG STUDENTS WITH  
VISION IMPAIRMENT AND STUDENTS WITH  
INTELLECTUAL DISABILITY IN SOUTH AUSTRALIA

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Thesis submitted in fulfilment of the requirements for

the degree of Doctor of Philosophy

School of Education

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The University of Adelaide

February

2013

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## **Abstract**

There is an absence of research in Australia on self-concept and test anxiety in students with disabilities although testing is taken for granted among students without disabilities. This study investigated the self-concept and test anxiety of the students in each of two disability groups, those with vision impairment and those with intellectual disability who were placed in specialist and mainstream educational settings in South Australia. The qualitative study aimed to gain insights into what students with vision impairment and those with intellectual disability felt about themselves and their achievements across the different dimensions of self-concept and to understand the nature and extent of their anxiety in test situations. In addition, it sought to examine how far the support services provided in schools proved helpful to students with vision impairment and those with intellectual disability.

This research was divided into two stages of execution. In Stage 1, the ‘Tennessee Self-Concept Scale: Second Edition’ and the ‘Test Anxiety Inventory’ were administered to 25 students with vision impairment and 20 students with intellectual disability. In Stage 2, interviews were conducted with 14 students with vision impairment and nine students with intellectual disability, as well as a total of ten parents and eight teachers. These data reflected a range of viewpoints from which to examine the research questions.

Although the majority of the students with vision impairment and those with intellectual disability obtained low scores on all dimensions of self-concept- physical, moral, personal, family, social and academic, some students in both categories obtained normal scores in relation to family and academic self-concepts. Among both groups of students, most had high scores in worry, emotionality and total test anxiety. However, students with vision impairment had slightly higher physically fearful symptoms (emotionality)

in comparison to cognitive fears (worry) in a testing situation, while exactly the reverse was found for students with intellectual disability. Some of the factors responsible for the low self-concept scores were identified through the interviews. Similarly, those interviewed explained the sorts of specific factors which explained the respondents' high test anxiety. The interviews were particularly useful in evaluating the support services that students with vision impairment and those with intellectual disability received. Although there was agreement that the support services had a positive influence on problem solving skills, social behaviour and academic learning of students with vision impairment, there were conflicting views about their effect on family life. Moreover, for students with intellectual disability, students and parents were more negative in their evaluation of support services, although teachers tended to be more positive. In relation to test anxiety, support services were seen as a positive influence for students with vision impairment, but appeared to help students with intellectual disability to a much smaller extent. These findings have implications for teachers, special educators, policy makers and a range of professionals in the education and special education sector in enabling greater understanding of the problems experienced by these students and pointing to modifications and improvements in the support services for these students.

**Key words:** Self-concept, Test anxiety, Support services, Students with vision impairment, Students with intellectual disability

## **Declaration**

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution to Poulomee Datta and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due references has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968. I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the library catalogue, the Australasian Digital Theses Program (ADTP) and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

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Date: \_\_\_\_\_

## **Acknowledgements**

My sincere thanks go to my three supervisors, Professor Tania Aspland, Associate Professor Carolyn Palmer and Dr. Margaret Secombe. Once commenced, this thesis would not have been completed without the continual support, encouragement, insightful feedback, advice and sound academic direction on both content and research methodology from my three supervisors. Their rigor, scholarship and professional guidance, delivered with such grace and good humour, have challenged and invigorated my learning.

I am indebted to the several school and college Principals who agreed to allow me to collect my data from their school/ institutes. I would like to acknowledge the assistance given by support and regular teachers who assisted in recruiting participants, providing information and participating in the research interviews. Their professionalism, warmth and enthusiasm were most important during the data collection phase. My thanks go also to the students and parents who so willingly participated in the study.

I would also like to express my appreciation for the stimulation, support, and tolerance offered by colleagues in both the School of Education at the University of Adelaide and the School of Education at Flinders University. I wish to thank members of the University of Adelaide, School of Education. The office and the academic staff have all made the process of thesis production an enjoyable task.

My thanks also go to my family for their patience, tolerance, undying support and encouragement. I pay tribute to my parents, Pulak and Mita Datta, who instilled in me the values of pride, hard work and learning. Their love, support and understanding has

been one of the main driving forces behind my academic pursuits. May they jointly celebrate in the attainment of this award.

Finally, this thesis would never have been completed without the consistent assistance and encouragement offered by my husband, Joy Talukdar, who has always been a source of inspiration for my work. Joy, your considerable forbearance and personal support enabled me to complete my PhD. This thesis is dedicated to you!

# **CHAPTER 1: SELF-CONCEPT, TEST ANXIETY AND SUPPORT SERVICES**

## **1.1 Introduction**

Vision impairment and intellectual disability can impact on students' learning with the result they may experience difficulties in school and home (Fitts, 1996; Halder & Datta, 2012a). Some of these students may develop poor self-concept and high test anxiety (Garaigordobil & Pérez, 2007; Lucy, 1997; Yousefi, Redzuan, Mansor, Juhari, & Talib, 2010).

This study investigates the self-concept and test anxiety of students with vision impairment and those with intellectual disability in South Australia. The focus is on self-concept across six dimensions namely: Physical, Moral, Personal, Family, Social and Academic Self-Concepts and Total Self-Concept, and test anxiety across two components Worry and Emotionality and Total Test Anxiety. This study further provides insights into what students with vision impairment and those with intellectual disability are able to achieve in the different dimensions of self-concept and highlights the reasons for high or low self-concept and test anxiety in these students. In addition, the influence of the support services provided in schools for students with vision impairment and those with intellectual disability have been examined in relation to the students' problem solving skills, family, social and academic lives and test anxiety. Self-concept and test anxiety are used as the key variables to unveil some of the social, personal, family and academic problems faced by both groups of students.

Physical, sensory (which includes vision and hearing impairment), psychological and intellectual impairment are common types of impairment found in Australia (Australian

Bureau of Statistics [ABS], 2011). According to the ABS (2011), over half of all people with a disability have a physical impairment, either alone (30%) or in combination with another impairment (27%). More than one-third (37%) have a sensory impairment and around half of these (18%) have a sensory impairment only. Other types of impairments prevalent are psychological and intellectual (27%). There is some variability in the distribution of disability reported across States and Territories in Australia. The disability prevalence rate is highest in Tasmania followed by South Australia and lowest in the Northern Territory and Australian Capital Territory. Figure 1.1, presents the prevalence of disabilities across States and Territories in Australia.



Source: ABS Survey of Disability, Ageing and Carers, 2009 (cat. no. 4430.0)

**Figure 1.1 ABS Survey of Disability (Ageing and Carers, 2009 cited in ABS, 2011)**

South Australia is the chosen context for this study because it is the State with the second highest prevalence of disabilities in Australia. Vision impairment is a low incidence disability, but it has a high impact on a young person's learning and development (Chen, 2001). In 2004, there were an estimated 480 000 Australians who were vision impaired, of which over 50 000 (10.5%) were classified as blind (Taylor, Pezzullo, & Keeffe, 2006). The number of people with low vision and blindness are

projected to almost double by 2024 with the ageing of the population according to Taylor et al. (2005). Macular degeneration has been identified as the leading cause of blindness in Australia with almost half of all cases of blindness in the country (Taylor et al., 2005).

Intellectual disability is a major disability in the Australian population, especially among children and young adults (Australian Institute of Health and Welfare [AIHW], 2008). Over half a million Australians have intellectual disability (AIHW, 2008). People with intellectual disability are a major group of users of disability support services in Australia (AIHW, 2005, 2007), which could stand alone be an imperative rationale to study this cohort. The estimated number of people with intellectual disability in South Australia in 2003 was 52,600 (AIHW, 2008). Intellectual impairments are often diagnosed early in a person's life and generally affect the younger population (42% were aged less than 25 compared with 26% aged 65 years or more) (Commonwealth of Australia, 2000). Thus, the age range of the students with intellectual disability in this study ranged from 15 to 25 years.

Research worldwide has substantiated that disabilities, in general can impact negatively on the self-concept and test anxiety of a student (Elbaum & Vaughn, 2001; Hancock, 2001; Heiman & Precel, 2003; Peleg, 2009; Sharma, Vaid, & Jamwal, 2004). Despite having these data on the prevalence of vision impairment and intellectual disability in Australia, little information is available on the impact that vision and intellectual loss can have on these students' self-concepts and test anxiety, making it a critical area of investigation.



## **1.2 Background to the Study**

The following subsections trace the historical development of students with disabilities in Australia over a specific period of time. Further, the South Australian background for this study is provided.

### **1.2.1 Historical Perspective in Australia**

Between the 1940s and the 1970s school systems in Australia began to establish a large number of segregated special schools to cater for students with specific disabilities. According to Loreman, Deppeler and Harvey (2005), only those students considered to be 'educable' were placed in public schools and many children with profound and intense support needs were not offered admission even in special schools. In the early 1970s, the Karmel Report (Karmel, 1973), *Schools in Australia*, recommended Government support for integration, resulting in Commonwealth funding being directed to Government schools in 1974 and extended to the private sectors in 1975. In the 1970s whilst acknowledging the recommendations of the Karmel Report and international declarations that were enacted on the rights of the child, discussions commenced about increasing regular class placements for children with disabilities (Forlin, 2006, p. 266).

It was not until 1981 (International Year of Disabled Persons) that the integration of people with disabilities occurred on a large scale in Australia (Carroll, Forlin, & Jobling, 2003). At the same time in the United States, professional advocacy groups claimed that the legislation did not go far enough. They therefore, launched the Regular

Education Initiative (REI) movement, which called for the merging of special and general education into one single system in which all children attended the regular community school. The REI maintained that all special education staff, resources and learners with special needs should be integrated into the regular school (Kisanji, 1999). Countries such as Australia and New Zealand left the debate open, but emphasised parental choice (Kisanji, 1999). By the end of 1981, the concept of integration was emerging slowly and by then every jurisdiction in Australia had a policy on students with disabilities (Carroll et al., 2003). During the past two decades, there has been a slow but consistent movement across all states and territories in Australia towards the inclusion of children with mild to severe disabilities in regular classrooms (Ashman & Elkins, 1997; Forlin, 1998). Since then there has been a parallel and increasing momentum towards integrating people with disabilities into the mainstream of all aspects of society. However, there have been cases which have challenged regular class placements for children with disabilities in Australia (Forlin & Forlin, 1998). When students are placed in positive environments such as general classrooms it can be a place for growth, development and well-being (Sale & Carey, 1995). Students with disabilities have equal rights to access free education in the least restrictive environment and with adequate supports, as has been legislated in countries like the US (Forlin & Forlin, 1998; Pivik, McComas, & Laflamme, 2002). In Australia and New Zealand, it remains a matter of policy, not law.

The Salamanca Statement and framework for action on special needs education (UNESCO, 1994) states that those who have special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs. However, schools in Australia in the 90s

have predominantly been exclusive institutions and have failed to attain inclusion status (Roger, 1996). Forlin and Forlin (1998) further argued that despite the complex arrangement of laws and policies for education in Australia, there is no legal mandate to ensure inclusive education.

The integration of students with disabilities called for children being registered in a separate facility or class within a regular school, and then provided with opportunities to participate in the mainstream setting (Forlin, 2006). In Australia, this meant that students with disabilities (which included students with vision impairment and those with intellectual disability) were increasingly registered in their local regular school. They may be withdrawn for parts of the school day to receive intensive intervention programs by a specialist support teacher (Forlin, 2006). This option was prevalent in the early 2000s and was usually determined by the school considering whether it was able to provide for a student before offering them a mainstream placement (Forlin, 2006). Following the publication of the Salamanca Statement (UNESCO, 1994) the focus of education has gradually moved towards inclusion (Forlin, 2006). Inclusion, however, remains a challenging prospect in secondary schools. Forlin (2006) further indicated that since the Salamanca Statement, inclusivity has been an evolving paradigm in Australia yet some schools are failing to attain it as they are led by unresponsive bureaucracies, teacher unions more concerned with ideology than supporting what happens in the classroom (Donnelly, 2004). Inclusion is used here to represent the education of all students in general classrooms.

Tenets of the inclusion concept, according to Elkins (2009) are as follows: complete acceptance of a student with a disability or other marginalised students in a regular class, with appropriate changes being made to ensure that the student is fully involved

in all class activities. Thus, inclusion is characterised by the redesign of regular schools both physically and in curriculum, to provide for the complete education of all students who seek to attend (Ashman & Elkins, 2009). Pearce and Forlin (2005) indicated that many of the changes occurring in education systems within Australia were conducive to inclusion. The movement towards the inclusion of students with disabilities occurred in 2006 in most states in Australia, with the degree and outcome being quite varied as it continues to rely upon independent arrangements at each school site (Forlin, 2006). As a consequence today, the majority of students with disabilities attend general education classrooms alongside peers who are non-disabled in Australia and in most parts of the developed world. Along with Special Education centres highly specialized inclusive schools have also been developed (Early Childhood Resource Teachers Network Ontario, 1997; Irwin, Lero, & Brophy, 2000). Both of these types of educational settings provide a variety of support mechanisms to develop the students academically and socially.

Carrington and Robinson (2004) indicated that the Index for Inclusion (Booth, Ainscow, Black-Hawkins, Vaughan, & Shaw, 2000) provided a useful framework for professional development related to inclusive schooling in Queensland, Australia. The Index for Inclusion is a unique set of materials designed to support schools in a process of inclusive school development. The Index is concerned with improving school attainments through inclusive practices and it does this for all pupils. The Index for Inclusion was developed in the UK at the Centre for Studies in Inclusive Education (CSIE) by Tony Booth and Mel Ainscow. In March 2000, these resources were released by the Department of Education to all government schools in the UK (Carrington & Elkins, 2002; Vaughan, 2002).

Recent research on inclusion in Australia (Anderson, Klassen, & Georgiou, 2007; Forlin, 2006; Subban & Sharma, 2006) suggests that though in some schools, teachers and parents have been very positive towards inclusion, a number of obstacles and barriers have arisen in implementing it in the regular classrooms. Over the past five years, all Australian states and territories, education departments and non-government sectors have continued to evolve and reconstruct themselves and inclusive education has been high on the agenda (Ashman & Elkins, 2009). Despite the widespread appeal of inclusion as a social justice ideal, the educational outcomes and general wellbeing of students with special educational needs and disabilities has not been explored (Ashman & Elkins, 2009). Palmer (2003) has identified self-concept to be an important goal for all students with disabilities and Purdie and McCrindle (2004) further consider it to be a means of facilitating desirable outcomes in these students. Test anxiety also has been regarded as an important determinant in the academic outcomes of students (Putwain, 2008). Since research has identified self-concept and test anxiety as the two key variables among others in improving the general wellbeing and educational outcomes for students (Fitts & Warren, 2003; Halder & Datta, 2012b; Putwain, 2008), these two facets have been chosen to investigate in students with vision impairment and those with intellectual disability in South Australia.

### **1.2.2 The South Australian Context of the Study**

The Department for Education and Child Development (DECD) is responsible for ensuring the provision of children's services and public education throughout South Australia. The DECD provides the Disabilities Support Programme wherein additional support is provided to support learners with disabilities to work alongside learners

without disabilities, in mainstream settings [Department for Education and Child Development (DECD), 2012a]. The DECD provides a range of learning and teaching materials, resources and specialized services which support children and students with disabilities in mainstream and specialist schools in South Australia (DECD, 2012a). Despite the provision of these support services, research on their efficacy on students with disabilities outcomes is still in its embryonic stage. No research in particular has studied the influence of these support services on the problem solving skills, family, social and academic lives and test anxiety of students with vision impairment and those with intellectual disability which this study aims to explore.

### **1.3 Statement of the Problem**

Self-concept is an issue which substantially impacts on the well-being and total personality development of students in general (Broderick & Blewitt, 2006; Hadley, Hair, & Moore, 2008). Thus, this aspect is of particular importance in the special education context. Research has identified self-concept as a desirable goal for all students (Palmer, 2003; Halder & Datta, 2012b); however, it is of particular importance for students who may be perceived as vulnerable such as those with disabilities (Craven et al., 2003; Zetlin & Turner, 1988). An adolescent's self-concept is dynamic, intricate and irregularly patterned (Inhelder & Piaget, 1958). That is difficulties and conflicts in the adolescent stages can lower self-concept which can result problems in academic, behaviour, adjustment to peers and family relationships. Adolescents with vision impairment or intellectual disability are further prone to feelings of inadequacy and inferiority (Beaty, 1991) which casts a negative influence on their self-concept, making it a critical area of study. When the Australian government has placed students with special educational needs and inclusivity in mainstream classrooms as one of its top

priorities (Aspland & Datta, 2011), it is surprising that most of the self-concept research has been directed towards students without disabilities, and students with disabilities have been excluded from the realm of self-concept research. While research has identified that self-concept is a key factor in students' school success (Hilberg & Tharp, 2002; Kanu, 2002; Swanson, 2003), it is surprising that in the era of equality, mainstreaming and inclusion, there is no research to date to investigate the different dimensions of self-concept among students with vision impairment and those with intellectual disability and the factors associated with it, particularly in South Australia.

Test anxiety is another issue causing a significant level of stress and concern during examinations and tests for all learners (Putwain, 2008). Hill and Wigfield (1984) estimated that "as many as 10 million students in elementary and secondary schools suffer from test anxiety and perform more poorly on tests than they should" (quoted in Wigfield & Eccles, 1989, p. 159). It should be noted that this estimate of 10 million was made in 1984, 28 years ago. With the growth in the student population and tests being more competitive in recent years, it is likely that this figure has risen dramatically (Daugherty, 2006) and the literature suggests that there is a "paucity of recent data on the prevalence of test anxiety amongst students" (Zeidner, 1998, p. 6). Test anxiety "is a benign problem but it can be malignant" when it leads to distress and academic failure in otherwise capable students (Wachelka & Katz, 1999, p. 1). If impairment, in this case- vision impairment and intellectual disability is added to this situation, it compounds the problem and can be distressing and frustrating for these students. While research has established that there is a strong link between higher anxiety levels and poor academic performance in students with vision impairment (Eniola, 2007), it is surprising that there have been no studies to investigate the test anxiety in students with

vision impairment. In addition, de Decker, Hermans, Raes and Eelen (2003) and Yousefi, Redzuan, Mansor, Juhari and Talib (2010) have conclusively supported the relationship between test-anxiety and memory deficits. Further, Eysenck (2001) and Vasa et al. (2007) found an inverse relationship between students' Intelligent Quotient (I.Q.) and test anxiety and since I.Q. scores are one among many factors to diagnose intellectual disability, it is worthwhile to explore the test anxiety in students with intellectual disability, which this study purports to do. Therefore, an investigation of test anxiety in students with vision impairment and those with intellectual disability is of value.

In addition, the DECD mainstream and specialist schools provide plentiful support services for students with vision impairment and those with intellectual disability. It is important to study the influence of the support services on these students in order to bring about an improvement, modification and adaptation in the nature of these support services. There is no research to date to study the influence of the support services on these students' problem solving skills, family, social and academic lives and test anxiety which this research aims to examine.

#### **1.4 Purpose of the Research**

The purpose of this study is to investigate the self-concepts and test anxieties of the students with vision impairment and those with intellectual disability who are placed in specialist and mainstream settings in South Australia. This study also aims to determine the reasons for high or low self concept and test anxiety of the students under consideration and whether the support services offered at schools have any influence on these students' problem solving skills, family, social and academic lives and test



anxiety. The students with vision impairment and those with intellectual disability include adolescents in high schools and adults placed in Technical and Further Education (TAFE) Institutes.

## **1.5 Aims of the Research**

This study, designed to investigate the self-concept, test anxiety and support services among students with vision impairment and those with intellectual disability, has eight broad aims. The first aim is to explore the nature of self-concept across the dimensions namely: Physical, Moral, Personal, Family, Social, Academic and thus, Total Self-Concept of a group of female and male students with vision impairment and another group with intellectual disability.

The second aim is to explore the nature of and report the prevalence of low, moderate and high test anxiety across the components namely: Worry and Emotionality and thus, Total Test Anxiety in a group of female and male students with vision impairment and those with intellectual disability.

The third aim is to investigate whether there are any significant differences in the Physical, Moral, Personal, Family, Social, Academic and thus, Total Self-Concepts between female and male students with vision impairment and those with intellectual disability.

The fourth aim is to investigate whether there are any significant differences in the Worry, Emotionality and Total Test Anxiety between female and male students with vision impairment and those with intellectual disability.

The fifth aim is to provide insights into what students with vision impairment and those with intellectual disability are able to achieve in the different dimensions of self-

concept and to investigate the reasons for low or high self-concept in the Physical, Moral, Personal, Family, Social and Academic areas.

The sixth aim is to determine the reasons for high or low test anxiety in students with vision impairment and those with intellectual disability and to provide the strategies that could help these students to stay relaxed during tests.

The seventh aim is to study whether the support services provided in schools for students with vision impairment and those with intellectual disability influence these students' problem solving skills, family, social and academic lives.

The eighth aim is to study whether the support services provided in schools for students with vision impairment and those with intellectual disability influence these students' levels of test anxiety.

This study is not aimed to compare the findings in relation to these two groups of students. The two disability groups have their own unique and different characteristics and, therefore, at no stage comparison of the findings between these two disability groups- vision impairment and intellectual disability will be undertaken. However, the survey and interview responses for the two disability groups are reported separately with a view to informing professionals and adding to the body of knowledge on these areas in relation to either students with vision impairment or students with intellectual disability.

## **1.6 Research Questions**

The main research questions that emerge from the purpose and aims of the study in relation to students with vision impairment and those with intellectual disability are as follows:

- What are the scores of self-concept and its dimensions for the female and male students with vision impairment and those with intellectual disability in South Australia?
- What are the scores of test anxiety and its components for the female and male students with vision impairment and those with intellectual disability in South Australia?
- Are there any significant differences in the scores of self-concept and its dimensions for students with vision impairment and those with intellectual disability with respect to gender?
- Are there any significant differences in the scores of test anxiety and its components for students with vision impairment and those with intellectual disability with respect to gender?
- What are students with vision impairment and those with intellectual disability able to achieve in the different dimensions of self-concept and why?
- What are the reasons for high or low test anxiety in students with vision impairment and those with intellectual disability and what strategies could help these students to stay relaxed during tests?
- What is the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on students' problem solving skills, family, social and academic lives?

- What is the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on students' test anxiety?

## **1.7 Significance of the Research**

Research on self-concept and test anxiety worldwide has focused on the topic from psychological, educational and sociological perspectives. It is clear that this topic is important in a variety of fields and thus of value to study in the South Australian context.

Self-concept, which is considered to be an important facet for a child's social, psychological and educational development (Broderick & Blewitt, 2006) has important implications for positive existence, and is a significant variable for achievement and optimistic development in the society in every sphere irrespective of whether they are disabled or not (Halder & Datta, 2012b). Students with disabilities are less likely to develop a positive self-concept compared to students without disabilities (Elbaum & Vaughn, 2001). Research has substantiated that the physical, personal, moral, social, family, intellectual and school status and academic dimensions of self-concept (which this study explores) are the key factors to establish the total and all round development of an individual and bring success for the individual in all future endeavours (Fitts & Warren, 2003) in any educational context which schools need to bolster accordingly. In Australia, the importance of self-concept is highlighted in virtually all statements of the goals of education, and is seen as a means of facilitating desirable outcomes for all students (Purdie & McCrindle, 2004). In spite of such explicit and overt declarations of

the importance of self-concept, research in this arena is limited on students with disabilities.

Self-concept becomes more abstract and differentiated during adolescence and adulthood (Inhelder & Piaget, 1958). Harter (1990) suggests that adolescents and young adults are often disturbed by conflicting views of self. Broderick and Blewitt (2006) have described these two stages as complex and multifaceted wherein physical and psychological changes commence. Adolescence and adulthood are the two most important stages of life and as children move further into their teenage years and connect to the adult world, they face unfamiliar territory. If any kind of impairment or disability is added to these difficult stages of life, it may become very complicated and convoluted for these students and they need all the help and support that can be provided. Thus, the reason for choosing the focus on adolescence and adulthood. It is clear that the development of self-concept cannot be left to chance for students with vision impairment and those with intellectual disability. Self-concept is an important goal for all students with disabilities (Palmer, 2003). Programs need to be developed that address the systemic intervention and training of appropriate skills to develop the self-concept of students with disabilities (Palmer, 2003), but before this training can occur, the level and nature of self-concept acquired by these students must be explored. This research is significant in its aim to shed light on the physical, moral, personal, family, social, academic and total self-concepts of the students with vision impairment and those with intellectual disability and the reasons for their low or high self-concept in each of the dimensions as well as insights into how their experiences in their physical, moral, personal, family, social and academic lives impact outcomes on each of these dimensions. It will also contribute to the body of knowledge on the areas that

serve as a catalyst to increase these problems for these groups of students. In order to design effective programs to develop the self-concept of students with vision impairment and those with intellectual disability, teachers need to be aware of the factors that affect the different dimensions of self-concept of these two groups of students. This knowledge will place them in a better position to provide opportunities and implement strategies that increase the positive self-concept in such students.

Examinations, tests and other forms of assessments are a considerable source of worry and stress for school students in any educational context (Hodge, McCormick, & Elliot, 1997; Jegede, Naidoo, & Okebukola, 1996; Kouzma & Kennedy, 2004; Kyriacou & Moutantzi, 2003 as cited in Putwain, 2008, p. 319). Trent and Maxwell (1980) characterise test anxiety as having potentially debilitating effects, and Hill and Wigfield (1984) have gone so far as to say it can actually create an 'invisible disability' (p. 107). Test anxiety is becoming increasingly prevalent across grade levels and populations of students. Reports of students who cannot sleep the night before an important test or who vomit the day of the test are increasing (Casbarro, 2005). The phenomenon of test anxiety is real, occurring in all learners. Students with special educational needs and disabilities are no exception. Although research on test anxiety is taken for granted among students without disabilities, it is important to investigate the same in students with disabilities. Therefore, this study provides insights into the test anxiety in students with vision impairment and those with intellectual disability, the reasons for high test anxiety in these students and the strategies to deal with it effectively. Such findings can be particularly useful to mainstream and special education teachers in designing and developing a flexible repertoire of tests, assignments and activities for these students.

If self-concept and test anxiety are closely monitored and extensively analysed, then educational practices, systems as well as support services can be modified, improved and strengthened accordingly. There has been no research to date that investigated the impact of the support services provided in schools for students with vision impairment and those with intellectual disability on their problem solving skills, family, social and academic lives and test anxiety which this study aims to investigate. Such findings can be used to adapt, extend or improve the support services in a way that these two groups of students can reap the maximum benefit out of it.

It is anticipated that this research will be useful to students, teachers, parents, educational administrators and planners, counsellors and special educators who will be undertaking work in the field of Special Education particularly dealing with students having vision impairment or intellectual disability. The study is designed to add to current information in terms of program planning, and the provision of a safe, secure, positive learning environment for all students.

## **1.8 Limitations and Delimitations**

### **Limitations of the Study**

- The study was limited by the size of the sample that was selected for this study which was restricted by access to an already small population. Data were collected from multiple sources (students with vision impairment and those with intellectual disability, their parents and teachers). Although the number of participants in the groups investigated was low, the data collection was in depth.

- The data were collected in a State in Australia, which provided few subjects. The sensitivity of the area and the unwillingness of some parents to participate in the study, further limited access to subjects. Because of the low numbers of students with vision impairment and those with intellectual disability available for the study, findings must be interpreted with care.

### **Delimitations of the Study**

- The study was limited to an investigation of only two groups of students: those with vision impairment and those with intellectual disability.
- The sample undertaken for this study was limited to adolescents attending state specialist and regular schools in South Australia (it did not include adolescent students attending schools in the Catholic and Independent sectors) and adults attending South Australian TAFE Institutes (it did not include adult students attending Universities).
- In this study, only students with mild intellectual disability were included as students with moderate, severe and profound intellectual disability would have difficulty understanding the questions.

## **1.9 Definition of Terms**

### **Vision Impairment**

Vision Impairment is a generic term that is used to describe individuals who are blind or who have low vision (Hallahan, Kauffman, & Pullen, 2009). In this study, students from all levels of vision impairment were included, visual acuity ranging from less than



6/18 (low vision) to less than 3/60 (blindness). All kinds of vision impairment (whether congenital or acquired vision impairment) were included.

### **Intellectual Disability**

The American Association on Intellectual and Developmental Disabilities (AAIDD) defines Intellectual Disability as a “disability characterized by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social and practical adaptive skills” (Hallahan et al., 2009, p. 147). This research only included students with diagnosed mild intellectual disability.

### **Self-Concept**

Self-Concept refers to the complex system of learned beliefs, opinions and attitudes a person has about himself or herself (Palmer, 2003).

### **Test Anxiety**

Hong (1998) claimed that test anxiety is “a complex multidimensional construct involving cognitive, affective, physiological, and behavioural reactions to evaluative situations” (p. 51). For the purposes of this study, test anxiety is used to refer to any stress or anxiety experienced by students before and during a testing situation or prior to submitting an assignment.

### **Support Services**

Support services for students with disabilities comprise a range of educational and specialised services (including special teachers’ assistants, itinerant teachers, personal

educational support and curriculum support), resources and assistive technologies needed for them to participate in the educational activities for which they are enrolled on the same basis as students without disabilities (DECD, 2012a).

## **1.10 Thesis Structure**

This thesis has been organised into eight chapters. Chapter 1 introduces the study, outlines the purpose and significance of the research, states the aims and the research questions, defines key terms and explains the study's limitations and delimitations.

Chapter 2 analyses and synthesises the views of researchers in the field on self-concept and test anxiety for students with disabilities with a particular focus on vision impairment and intellectual disability. Collectively the previous studies discussed sketch a holistic picture of the current state of self-concept, test anxiety and support services for students with vision impairment and those with intellectual disability and establish the context for this research.

Chapter 3 provides the theoretical framework for the research. The Shavelson, Hubner and Stanton (1976) and Marsh and Shavelson (1985) models of self-concept and other recent research studies (Al-Zyoudi, 2007; Bolat et al., 2011; Duvdevany, 2002; Halder & Datta, 2012a; Lo'pez-Justicia & del Carmen Pichardo, 2001; Tracey & Marsh, 2002) formed the basis for the different dimensions of self-concept used in this study. Similarly, to substantiate the worry (cognitive thoughts) and emotional (physical reactions) states of test anxiety used in this study, the Spielberger and Vagg (1995) model of test anxiety was used.

Chapter 4 outlines the research methodology and design. In this chapter, the research paradigm is identified, the research questions restated, and an overview of the research design provided. The research methods are explicated and the strategies for data collection and analysis are detailed, along with ethical considerations.

Chapter 5 reports and analyses the Stage 1 survey questionnaire data around themes namely: Physical, Moral, Personal, Family, Social, Academic and Total self-concepts and Total test anxiety including Worry and Emotionality. Two approaches are used to present the questionnaire data. Firstly, descriptive statistics is used in the form of percentages in each theme to identify the incidence of high, average or low cases across gender in each of the two disability groups, vision impairment and/ or intellectual disability. Secondly, the Welch independent t-test is employed in each theme to find out whether there are significant differences across gender in the two disability groups, vision impairment and/ or intellectual disability.

Chapter 6 reports and analyses the Stage 2 interview responses around themes namely: Physical, Moral, Personal, Family, Social and Academic self-concepts and Test anxiety. The data from interviews with students, their parents and teachers in each of the two disability groups- vision impairment and intellectual disability are presented under each theme.

Chapter 7 also reports and analyses the interview responses but focuses on the last two themes in Stage 2: Influence of the support services on students' problem solving skills, family, social and academic lives and Influence of the support services on students' test anxiety. The data from interviews with students, their parents and teachers in each of

the two disability groups- vision impairment and intellectual disability are presented under these two themes.

Chapter 8 discusses and interprets the collective findings (questionnaire and interview data) from Chapters 5, 6 and 7 on self-concept, test anxiety and support services. In this Chapter, the findings are supported and contrasted by the literature, wherever possible.

Finally, Chapter 9 presents the structure of the entire study, together with the research questions and answers provided to each research question are restated. The implications for educational policy and practice and future research with reference to the research findings, and the conclusions are also provided.

# **CHAPTER 2: LITERATURE REVIEW**

## **2.1 Introduction**

This Chapter presents an extensive review of the empirical research that shapes the argument for the significance of the research. A range of carefully selected scholarly works were surveyed in order to refine understanding of topics relevant to this study. This chapter is organised under three main sections: why study self-concept, why study test anxiety and why study support services. Exploration of these topics in international and Australian research identified gaps in the literature related to the research questions indicated in Chapter 1. The first section provides an overview of the relationship between self-concept and adolescents and disabilities. This section also analyses the research which focuses on self-concept and vision impairment in children and adolescents. The first section further considers the research literature on self-concept and intellectual disability, with particular emphasis on children, adolescents and adults with intellectual disability. In addition, research studies on the impact of school placement and stigma on self-concept are considered under this section.

In the second section, a critique of the literature focussing on the past and recent research on test anxiety in relation to its prevalence and factors are outlined. The literature on test anxiety in students with disabilities, with a particular focus on the test anxiety in students with vision impairment and those with intellectual disability is analysed.

The third and final section reviews the support services that are actually provided in mainstream and specialist schools in South Australia for students with vision

impairment and those with intellectual disability. The lack of any research studies on support services for students with vision impairment and those with intellectual disability is identified in relation to the aims of the present study. In summary, this chapter examines the research on self-concept and test anxiety in relation to students with vision impairment and those with intellectual disability, and the context of support services for these students as found in the South Australian mainstream and specialist schools.

## **2.2 Why Study Self-Concept?**

Self-concept is generally considered to be “the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence” (Purkey, 1988, p. 2). Franken (1994, p. 443) states that “there is a great deal of research which shows that the self-concept is, perhaps, the basis for all motivated behaviour”. He argues that “it is the self-concept that gives rise to possible selves, and it is possible selves that create the motivation for behaviour” (Franken, 1994, p. 443).

Self-concept is a significant and exhaustive area which forms an important part of one’s personality. According to Snygg and Combs (1949), self-concept, something beneath one’s skin, which affects one’s behaviour, is an organisation of ideas about one’s self which is derived from one’s experience with others. Undoubtedly, a positive reality-based concept of self and an awareness of feeling good about oneself is perhaps the most precious quality one can give a child, yet it remains one of the most elusive qualities (Snygg & Combs, 1949).

### **2.2.1 Self-Concept and Adolescence**

Broderick and Blewitt (2006) argued that during the adolescence period, many changes in the social and interpersonal life of the adolescent occurs. In addition, they believed that during this period, the adolescent becomes more self-conscious. Adolescence has theoretically been described “both as a period of heightened storm and stress with a change in the self-concept in a discontinuous manner (Arnett, 1999; Blos, 1962; Erikson, 1968; Freud, 1983; Sullivan, 1953 as cited in Ybrandt & Armelius, 2003, p. 2) and as a stage characterised by gradual development of the self-concept rather than by disruption” (Stern, 1985 as cited in Ybrandt & Armelius, 2003, p. 2).

According to Hadley et al. (2008), an adolescent’s self-concept is dynamic and complex. On the one hand, they believed that problems and difficulties can lower the self-concept of adolescents; and low self-concept can also cause social, emotional and academic problems. On the other hand, they argued that positive overall self-concepts have been linked to positive development, including enhanced peer relationships and overall happiness. An overall negative self-concept in adolescents has also been associated with depression, eating disorders and other kinds of persistent conflict or disturbance (Fitts & Warren, 2003). Both male and female adolescents struggle with negative self-concept, but female adolescents tend to worry more about physical appearance than do males (Hadley et al., 2008).

The adolescent’s self-concept changes in many ways throughout the adolescent years (Broderick & Blewitt, 2006). The changes that take place in self-concept during those years are due in a large part to the cognitive changes that are also taking place (Inhelder & Piaget, 1958). Growth in abstract and hypothetical thinking as described by Inhelder

and Piaget (1958) affects the way in which adolescents describe themselves. Advances in social – cognitive processes, including social comparison, perspective taking and self awareness also contribute to the changing self-concept (Thies & Travers, 2006). Cognitive abilities to compare oneself with others emerge in middle childhood, increase in adolescence and continue until young adulthood as the individual encounters more complex and varied groups of individuals with whom to compare the self (Thies & Travers, 2006). According to Selman (1980), abstract thinking contributes to developments in perspective taking (or the ability to understand a situation from another person’s point of view). Perspective taking enhances self understanding, because the adolescent and young adult can step outside an immediate situation and look at themselves as others would (Selman, 1980).

Some psychologists believe that adolescents’ self-concepts are frequently troubled. Rosenberg (1986) for example, argues that the adolescent is more likely than younger or older persons to develop an unhealthy self-concept. Harter (1990) believes that the more advanced reasoning self skills of the adolescent and young adult influences self-concept in both positive and negative ways. Offer, Ostrov and Howard (1981), on the other hand, provide evidence that most adolescents are happy and have positive self-concepts. It has been argued that advanced social reasoning skills can also help adolescents behave in more socially acceptable ways enhancing their evaluation by others (Thies & Travers, 2006). In some adolescents and young adults at least, changes in the way they think about themselves contribute to occasional emotional problems such as depression and anxiety (Thies & Travers, 2006).



Adolescence is a critical period for changes and development in the self-concept of an individual. During this period self-concept becomes more abstract and differentiated (Inhelder & Piaget, 1958) and Harter (1990) suggests that adolescents are often disturbed by conflicting views of self. In the literature, researchers suggest that the young person with his/her growing ability to think critically tries to discover the various facets of his/her self-concept (Ittyerah & Kumar, 2007). In contrast, another group of researchers have indicated that self-concept is relatively stable throughout adolescence (Coleman, 1974; Piers & Harris, 1964). However, it may be different for individuals who suffer from a chronic illness or disability during adolescence (Halder & Datta, 2012a). Harter (1990) suggests that those in middle adolescence years (ages 14 to 15) are most troubled by conflicting views of the self. However, late adolescents, he claims integrate the diverse views of self into a more abstract conceptualization. Broderick and Blewitt (2006) indicated that between middle childhood and early adolescence, the individual becomes capable of integrating opposing characteristics and begins to form more abstract trait-like concepts to describe themselves. Broderick and Blewitt (2006) purport that self-concept tends to decline slightly during middle childhood, adolescence and early adulthood because children and young people recognize, often for the first time, how they fall short in comparison to others. It can be concluded that struggles to integrate abstract representations of the self characterise the period of adolescence and early adulthood as the young person works on defining their own unique identity.

Sirgy (1982) indicated that an ideal or imagined self-concept can develop during adolescence. According to him, the ideal self is the self that one would like to be. Difficulty can arise for adolescents if a large difference exists between the actual self and the ideal self (Sirgy, 1982). Adolescents' self-concepts are likely to change

frequently as their ideal and actual views of themselves change. The difference between the ideal and actual self is believed to be greatest in mid adolescence probably because the ideal self is often inflated in some teens (Ittyerah & Kumar, 2007).

Therefore, the above account indicates that self-concept can be disturbed, poor, complex, and irregular in nature during and after adolescence. It also indicates that the adolescents with their growing abilities to think more critically are able to hold diverse and multifaceted views of self-concept. So if the different dimensions of self-concept of an individual are to be explored, it is worth investigating the adolescent and adulthood stages. It is due to this reason that this study confined itself to adolescents and young adults.

### **2.2.2 Self-Concept and Disability**

The foundations of the self-concept are laid during the early months when the infant begins to delineate himself/herself from the environment through exploration and experience (Broderick & Blewitt, 2006). As he/she goes out of the home, he/she learns about the world around him/her and later hears stories from books, radio and television of what children like him/her are doing. Most of these experiences are less assessable to the child with disabilities and development is slower usually than that of a child without disabilities (Sharma et al., 2004). His/her concept of himself/herself, as a separate entity, therefore, is more difficult to achieve from the beginning (Sharma et al., 2004). Being given a name and being addressed by it is a basic part of the development of a concept of oneself (Hardman, Drew, & Egan, 1987; Kirk & Gallagher, 1983; Meyen, 1982; Peterson, 1987).

A study examining the social integration and self-concept of students with disabilities in the inclusive classroom was carried out by Cambra and Silvestre in 2003. To do this, a sociogram and a self-concept test covering three dimensions: social, personal and academic self-concept, were administered. The study sample was made up of 97 students with special educational needs included in a mainstream school in Catalonia (Spain). These children had hearing, motor, visual, relational, learning and cognitive problems. The results indicated that the students with disabilities had a positive self-concept albeit it was significantly lower than that of their counterparts, especially in the social and academic dimensions.

Studies conducted by Joiner, Lovett and Goodwin (1989) showed that there is a positive relationship between assertive behaviour and the degree of acceptance of disability among persons with disabilities. Fitchen, Adler, Agam and Severson (1991) included that in everyday social encounters the thoughts and feelings of individuals who are physically disabled were more negative. They also asserted that the mental health too was affected by the poor physique. Elbaum and Vaughn (2001) indicated that children with special educational needs tend to have lower self-concept and self-esteem levels than those without disabilities. Ben-Towim and Walker (1995) observed that the development of negative body attitudes may be linked to the emergence of a chronic physical condition during adolescence. Blomquist, Brown, Peersen and Presler (1998) further claimed that adolescents with disabilities face considerable barriers such as low expectations from parents and other significant people in the community, a lack of knowledge about career and educational services and poor self-advocacy skills during attempts to achieve their goals. Upadhy and Tiwari (1985) suggested that when children with disabilities are integrated with children without disabilities, children with

disabilities accept their disability yet they have a poor self-concept. Sharma et al. (2004) too reached a similar conclusion that children with disabilities possess a very poor self-concept.

According to Halder and Datta (2012b), self-concept has important implications for positive existence, and is a significant variable for achievement in every society. Palmer (2003) too emphasized that self-concept is an important goal for all students with disabilities. Purdie and McCrindle (2004) further established that in Australia the importance of self-concept is highlighted in almost all the statements of the goals of education and is considered as a means of attaining desired outcomes for all students. Recognizing its wider coverage than any other trait of personality self-concept has been chosen for the present investigation for its important implications in general well-being of the adolescents and adults. The literature above indicates that students with disabilities are further vulnerable to the development of a positive self-concept compared to students without disabilities. Therefore, identifying the criticality of the situation addressed students with vision impairment and those with intellectual disability are selected for the present study.

### **2.2.3 Self-Concept and Vision Impairment**

The potential relationship between vision impairment and difficulties in the formation of the self-concept has been the subject of much controversy for several years (Halder & Datta, 2012a; Lucy, 1997; Mishra & Singh, 2012). Most of the studies suggest the need to continue investigation in this area because inconsistent results have been found. Research studies observed two extremes in the appraisals of self-concept in youths who are vision impaired: either they had a very poor self-concept (Halder & Datta, 2012a;

Lucy, 1997; Mishra & Singh, 2012), or they overvalued their personal attributes compared to sighted people (Obiakor & Stile, 1990). “There is currently a small but developing body of research concerning the self-concept of children and adolescents with visual impairments. However, the self-concept of adults with visual impairments is largely uninvestigated” (Martines & Sewell, 1996, p. 55).

Hare and Hare (1977) indicated that the self-concept of subjects who are visually impaired may be negatively affected because they cannot experience a situation fully due to their vision loss. Tuttle (1984) stated that although all individuals are vulnerable to the development of a positive self-concept, individuals with vision impairment are at even greater risk. He stated that a sense of self-competence and the perceptions of others are important in the individual’s self-concept, because students with vision impairment are perceived as different by others, and so they are more likely to develop a negative self-concept. In the following sections, self-concept research studies on children and adolescents with vision impairment are outlined.

### **2.2.3.1 Children with Vision impairment**

A study of American students by Obiakor and Stile (1990) compared the self-concepts of 61 middle school children (years 6, 7 and 8) who were visually impaired and 229 who were sighted. Their self-concept was measured using the Student Self-Assessment Inventory devised by Muller, Larned, Leonetti and Muller (1984, 1986) which assesses children's self-knowledge, self-ideal, and self-esteem as related to physical maturity, peer relations, academic success, and school adaptiveness. The findings showed that students with vision impairment scored higher than the sighted children on 5 of the 12

subscales of the Inventory, refuting the notion that children with vision impairment have poorer self-concepts than sighted children.

Pierce and Wardle (1996) investigated the possible relationship between the body size, parental appraisal and self-esteem in children who are blind. Their sample consisted of 46 parent/child pairs of which 23 were boys and 23 were girls with a mean age of 10 years. The sample was predominantly white (N=39) with one black, four Asian and two Oriental children. The results indicated that preadolescent children who are blind supported the view that their beliefs of how parents appraised their body size were associated with self-esteem. The findings ascertained that children who were judged by their parents to be too thin had lower self-esteem than those who were considered just right or too fat regardless of gender or actual body size. The authors Pierce and Wardle (1996), however, stressed the need for further comparative research to explore the meaning of body size and the perspectives and causes of obesity in adolescents who are blind and sighted. They also suggested an exploration of whether the professed high self-esteem and good feelings about appearance found in the children who are blind were defensive, influenced by social desirability, or simply reflective of the acceptance of the vision impairment they have always lived with.

A comparative study of self-concept and self-confidence of children who are sighted and vision impaired in different schools in Delhi was carried out by Mishra and Singh (2012). A total of 200 students (100 sighted and 100 children with vision impairment) studying in different schools in Delhi comprised the sample. The measures included the self-concept inventory by Mohsin (1979) and the self-confidence inventory by Pandey (1983). The findings established that the sighted students had higher self-concept than

the students with vision impairment. However, no significant differences were noted in either the self-concept or the self-confidence across genders. The authors suggested giving ample opportunities to the children with vision impairment in an effort to developing them educationally, socially, and emotionally to build a healthy self-concept and strong self-confidence in relation to their impairments. They also advocated the implementation of behaviour modification techniques to enable children with vision impairment to achieve and perform at a maximum level.

Lucy (1997) examined the self-concept of students who were visually impaired in a mainstream secondary school in Hong Kong. The Chinese Adolescent Self-Esteem Scale (CASES) (Cheng, 1993; Cheng, 1996) questionnaire was administered to obtain a global picture of the perceived self of the students who were visually impaired. The mean test scores were used to supplement information obtained from content analysis of semi-structured interviews, in which questions were designed to see how students who were visually impaired perceived themselves and the reasons for their self perceptions in relation to five major dimensions, namely academic self, physical self, social self, family self and moral self. Lucy's study found that the participants with vision impairment had lower self-concept scores in all dimensions. Social self dimension was found to be the most negative, followed by the academic self. Findings in the questionnaire were consistent with findings in the interviews. Students generally lacked the social skills needed to communicate with their sighted counterparts. They reported fear of being rejected if they were to attempt making friends with other students, thereby displaying evidence of low self-esteem in the social self area. Clearly, the academic self was not reported as negatively as the social self. In relation to students'

intellectual abilities, they reported that they had the confidence to do much better provided additional support was given in the form of emotional support.

A recent study highlighting the gender differences in self-concept and academic achievement among pupils who are visually impaired in Kenya was carried out by Were, Indoshi and Yalo (2010). The population of the study was 291 pupils with vision impairment and the instruments used were the Pupils' Self-Concept and Academic Achievement Tests. The study established that there were indeed gender differences in self-concept among pupils who are visually impaired in Kenya. Boys were found to have lower self-concept than girls.

Another recent study (Pandith, Malik, & Ganai, 2012) focusing on the self-concept and level of aspiration was conducted with various groups of secondary school students who were physically challenged, which included students with hearing, visual and physical disabilities as well. For the measurement of self-concept, Sagar and Sharma's Self-Concept Inventory (two dimensions ideal and real self) was administered and to establish the participants' level of aspiration, Mahesh Bhargava and M.A. Shah's Level of Aspiration tool was used. The sample for the study was 150 secondary school students with special needs identified from 90 secondary schools of district Baramullah, Jammu and Kashmir by using purposive sampling technique. Mean, standard deviation and t-test were applied to measure and compare the self-concept (two dimensions) and level of aspiration of these groups of secondary school students. The analysis of the data revealed that the different categories viz secondary school students with hearing, vision and physical impairments did not differ on self-concept and level of aspiration. The findings indicated that all the three categories had the same attitudes, knowledge of



themselves and development of their achievements. The literature that follows sheds light on studies, conducted on the self-concept of adolescents with vision impairment.

### **2.2.3.2 Adolescents with Vision impairment**

Beaty (1991) examined relationships between vision impairment and adolescents' self-concept, utilizing 15 adolescents who were visually impaired and 15 sighted adolescents in an urban environment. Findings suggested significant differences in global self-concept, as well as in specific components of self-concept between the groups. Huurre and Aro (1998) observed the psychosocial development of adolescents with vision impairment in a group of 54 adolescents (40 boys, 14 girls) attending Finnish regular schools. The control group consisted of sighted adolescents of the same age level (N=385, 172 boys, 213 girls). Data were collected with self-report questionnaires. Results indicated that the adolescent group with vision impairment did not differ from the control group in the frequency of depression, distress symptoms or in their relations with parents and siblings. However, the adolescents with vision impairment less often had many friends and dates with other young people than those without vision impairment. They also reported more often feelings of loneliness and difficulties in making friends which could impact negatively on their social self-concept dimension. Self-esteem, school achievement and social skills were lower in girls with vision impairment than in the control group of girls.

Rosenblum (2000) examined the perceptions of the impact of vision impairment on the lives of adolescents. She found that each adolescent had a unique perspective on the impact of vision impairment on family, school, and peer relationships but that all valued their friendships. Rosenblum (2000) suggested that families and professionals should

work with young children with vision impairment to help them explore a variety of hobbies and develop skills in one or two. According to her, when the opportunity to engage in a hobby with a peer materializes, the child with vision impairment will be able to participate and develop a friendship as the two discover they have more in common than they have differences.

Lo'pez-Justicia and del Carmen Pichardo (2001) investigated whether there were gender differences in self-concept among adolescents with congenital low vision. The sample population consisted of 23 adolescents, 12–17 years of age (8 males and 15 females), who were attending either their second year of secondary education or a pre-university preparatory course. The Tennessee Self-Concept Scale (1965) was used as an evaluation tool. The overall results of their study showed some gender differences in the adolescents' self-concept and self behaviour. Female subjects scored lower on social self-concept, family self-behaviour, and moral self-behaviour dimensions than male subjects, but higher on physical self-concept. The sample selected by Lo'pez-Justicia and del Carmen Pichardo included only adolescents with congenital/ hereditary low vision. Those adolescents who acquired their vision impairment due to an accident or illness or who were blind were excluded. Therefore, adolescents representing all levels and kinds of vision impairment were not included in their sample.

Al-Zyoudi (2007) conducted a similar study where the gender differences in self-concept among adolescents with low vision were measured. The sample population consisted of 23 adolescents (10 males and 13 females) aged 12-17 years in the first year of secondary school (secondary schools in Al-Karak Governate in the south of Jordan). All participants were diagnosed as having low vision. The researcher used the

Tennessee Self-Concept Scale (1996) for the evaluation of self-concept. The results of this study showed that there were some differences in the adolescents' self-concept and self-behaviour due to gender. Female students scored lower on social self-concept, family self-behaviour, and moral self-behaviour dimensions than male students, but higher on physical self-concept. It is interesting to note here that the limitation in Al-Zyoudi's research was similar to that found in Lo'pez-Justicia and del Carmen Pichardo's research, in that he did not include adolescents who were blind in his investigation. Therefore, his sample was not a true representation of the entire population with vision impairment.

Another comparative study of self-concept of adolescents who are sighted and blind in India was carried out by Halder and Datta (2012a). The sample consisted of 160 participants aged 15 to 18 years of whom 100 were sighted and 60 were blind (from selected schools of West Bengal, India). The Piers-Harris Children's Self-Concept Scale (1969) was used. The results of the t-tests illustrated that there were no significant differences in the self-concept scores between the male and female adolescents who were blind. However, the sighted adolescents scored higher than the adolescents who were blind in three of the total six dimensions of self concept ('physical appearance and attributes', 'popularity', and 'happiness and satisfaction'), thus also scoring higher on the overall self-concept score. It is worth pointing out here that Halder and Datta's sample included only adolescents who were blind and the ones with low vision were excluded.

Other recent studies in the areas of self-concept and/or self-esteem were conducted by Lifshitz, Hen and Weisse (2007), Garaigordobi and Bernar'as (2009) and Bolat et al. (2011). Lifshitz et al.'s (2007) study reported on the self-concept and quality of friendships of 40 adolescents with vision impairment (20 in public schools and 20 in a residential school in Israel) which were compared to those of 41 sighted adolescents. Their findings revealed similar self-concept profiles for sighted adolescents and adolescents with vision impairment. The researchers, however, indicated some apprehension about the findings since the questionnaires were read individually to the students with vision impairment by the examiner, which, they believe had the potential to lead the students to present an ideal self-concept.

Garaigordobi and Bernar'as (2009) investigated self-concept, self-esteem, other personality traits and psychopathological symptoms in subjects with and without vision impairment. The sample was made up of 90 participants aged 12 to 17, 61 with no impairments and 29 with vision impairment from the three provinces of the Autonomous Community of the Basque Country. The Adult and Adolescent Self-Concept Adjective Checklist (LAEA; Garaigordobil, 2008) and The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) instruments were administered to participants. The ANOVA showed that there were no significant differences in self-concept and self-esteem in the samples, but the adolescents with vision impairment scored significantly higher in various psychopathological symptoms as well as in their capacity for kind behaviour. The ANOVA revealed no gender differences in any variables in adolescents without vision impairment. However, women with vision impairment scored lower in self-esteem and higher in various psychopathological symptoms. Pearson coefficients revealed negative relations between self-concept/self-esteem and all the

psychopathological symptoms, and neuroticism, as well as a positive relation with extraversion. Low psychoticism, high extraversion and low hostility were identified as predictors of high self-concept.

Finally, Bolat et al. (2011) investigated the depression and anxiety levels and the self-concept characteristics of adolescents with congenital vision impairment. Forty sighted adolescents were also included in the study as a comparative measure and the Children's Depression Inventory (1980), Piers-Harris Children's Self-Concept Scale (1964), Spielberger State-Trait Anxiety Inventory (1980) for Children and socio-demographic form were the instruments used. The difference between the two groups was not statistically significant either in terms of depression scores or in terms of total self-concept scores; the happiness, physical appearance, popularity, behaviour and adjustment subscales scores of the Piers-Harris Children's Self-Concept Scale (1964). The intellectual and school-status subscale scores of the adolescents with vision impairment were significantly higher than those of the controls. The adolescents with vision impairment did not score significantly lower than their sighted counterparts in any of the self-concept subscales since vision impairment was present from birth. It is likely that these adolescents with vision impairment had learnt ways and means to cope with their vision loss.

Literature in the areas of wellbeing, depression, mental health and studies of the psychosocial impacts of vision impairment on adolescents suggest that social isolation and perceptions of disability by peers can impact on the self-concept/self-esteem of adolescents with vision impairment (Hatlen, 2004; Kef, 2002). Their welfare can be positively affected by physical wellbeing, strong friendships and family networks and

encouragement by adults towards independence (Kef & Devkovic, 2004; Koenes & Karshmer, 2000; Rosenblum, 2000). Positive perceptions of disability and inclusion can also have a helpful impact (Kef, 2002).

To summarise, the research studies on children and adolescents with vision impairment revealed various discrepancies and limitations in their findings. Some of the researchers (Obiakor & Stile, 1990) found students with vision impairment obtained higher self-concepts than the sighted students, while others (Halder & Datta, 2012a; Mishra & Singh, 2012) found the reverse. While a few (Al-Zyouidi, 2007; Halder & Datta, 2012a; Lo'pez-Justicia & del Carmen Pichardo, 2001; Lucy, 1997) attempted to investigate the multiple dimensions of self-concept, there were others (Mishra & Singh, 2012; Were et al., 2010) who still measured only a single score of self-concept, despite the argument that this masks or veils important distinctions that individuals can make about their competence and capabilities in different dimensions of their lives (Harter, 1990). Some researchers (Al-Zyouidi, 2007; Lo'pez-Justicia & del Carmen Pichardo, 2001; Were et al., 2010) only compared the gender differences in self-concepts for participants with vision impairment, while others (Lucy, 1997) compared the prevalence of self-concept scores for this group against an established norm or standard. In addition, there were research studies on self-concept which either included adolescents with only low vision (Al-Zyouidi, 2007; Lo'pez-Justicia & del Carmen Pichardo, 2001) or adolescents who were blind (Halder & Datta, 2012a); these researchers did not represent in their sample students from all levels and categories of vision impairment. Moreover, the literature depicted that research in this area has covered many parts of the world; however, Australia has never been used as a research base for such studies. This is a sufficient reason to justify South Australia as the context for this research.

This study addresses the above limitations and gaps in the research on vision impairment. The present research not only investigates the prevalence/ frequency of high, average and low scores across the different dimensions of self-concept but also examines the significant differences in these dimensions across gender in students with vision impairment. In addition, all levels and kinds of vision impairment (low vision and blindness; congenital and acquired) are included in this study.

#### **2.2.4. Self-Concept and Intellectual Disability**

Children with intellectual disability have been included in self-concept research, however, it was often reported that it was difficult to determine accurate results for this population. Stanovich et al. (1998) compared the social integration and academic perceptions of typically developing students (the non-categorised group), students with intellectual disability (the group with exceptionalities/ disabilities), at-risk students, and students with English as a second language (ESL) in grades 2–8. The non-categorised (typical) group were found to have higher scores in academic self-concept and social acceptance when compared to the exceptional, ESL, and at-risk groups. Similar scores were reported in the academic self-concept for the exceptional, ESL and at-risk groups. For measures of social acceptance, the exceptional group scored lower than all groups and significantly lower than the non-categorised and at-risk groups. However, what needs to be noted here is that the exceptional group included students with learning disabilities and behaviour problems in addition to students with intellectual disability; therefore it was not possible to isolate or segregate the results exclusively obtained by the students with diagnosed intellectual disability. In the following subsections, self-concept research studies on children, adolescents and adults with intellectual disability are outlined.

#### **2.2.4.1 Children with Intellectual disability**

In many of the studies on the self-concept of students with intellectual disability, up to half of the participants had an IQ score above the accepted upper limit for the mild intellectual disability range (Taylor, Asher, & Williams, 1987; Zic & Igric, 2001), or IQ 70 or below (Schalock, Luckasson, & Shogren, 2007). Children with mild intellectual disability have IQ scores ranging from 50-70 and have limits in adaptive abilities and communication skills (Diagnostic & Statistical Manual of Mental Disorders-IV-TR, APA, 2000). Taylor et al. (1987) found that the students with intellectual disability, who were in contact with their typically developing peers for an average of 8.4 hours of the school week, were less accepted and more rejected than their matched peers. They also found that their self-concept regarding loneliness and game playing was lower than their matched peers.

Zic and Igric (2001) in their study of 7- to 10-year olds in inclusive Croatian schools found that there was no significant difference in the perception of peer relationships between students with and without intellectual disability even though the students with intellectual disability were found to be rejected by their peers. Zic and Igric (2001) concluded that the self-concept of the students with intellectual disability was less affected by what others thought of them. Since most of the students with intellectual disability in the research detailed above had IQ scores higher than 70, the question of whether they can be truly termed as intellectually disabled is dubious.

Donohue (2008) found that children with intellectual disability who had lower vocabulary scores tended to have a higher non-academic self-concept. These findings suggested that children with lower cognitive capabilities find that because they do not



excel in academic areas, they focus their energy in areas outside of school such as in their physical abilities or socializing with their peers (Donohue, 2008). Similar patterns were evidenced in typically developing children by Wiest, Wong and Kriel (1998). They found that children struggling in school became especially skilled in non-academic settings to compensate for what they lacked in academic areas.

Silon and Harter (1985) considered self-concept and self-perceptions to be the product of cognitive processes and, therefore, argued that students with cognitive deficits (i.e. students with intellectual disability) were more sensitive towards developing a poor self-concept. Silon and Harter (1985) administered the Perceived Competence Scale for Children (Harter, 1982) on children with intellectual disability who were between the ages 9 and 12 years and on children without disabilities within that same chronological age. Factorial analysis revealed a pattern which was dissimilar to the factor solution for children without disabilities matched with chronological aged children with intellectual disability. Silon and Harter (1985) found similar results for children of pre-school/ kindergarten age whose mental age matched with the children with intellectual disability. However, children of pre-school/ kindergarten age were assessed on the Harter and Pike (1984), a parallel form of the Perceived Competence Scale for Children (Harter, 1982). Since it was the parallel form and not the exact form, it might have contained items the meaning of which was different to items contained within the Perceived Competence Scale for Children (Harter, 1982), thus questioning the validity of the study which used two different scales on different cohorts to measure the same variable.

Another study was conducted by Cuskelly and Jong (1996) where only the Pictorial Scale of Perceived Competence and Social Acceptance (PPCSA) (Harter & Pike, 1984) was administered to children with Down syndrome (developmental age 4-6 years 11 months) and normally developing children of a similar developmental age in Queensland. The results obtained portrayed similar self-concept scores for both groups. However, what needs to be noted here is that students with Down syndrome whose mental age were within the range of 4-6 years 11 months and chronological age within 13-17 years ideally come under the banner of moderate intellectual disability. Since participants with moderate intellectual disability would have notably low mental ages (4-6 years), to compare them with normally developing children of similar mental ages would mean that very young children/ preschoolers (chronological age at least around 4-6 years) were selected in the comparison group and to accurately measure the self-concept of such young children would be difficult.

#### **2.2.4.2 Adolescents with Intellectual disability**

Abells, Burbidge and Minnes (2008) examined the involvement of adolescents with intellectual disability in social and recreational activities. Sixty-three parents of high school students with intellectual disability completed telephone interviews. The results revealed that students most commonly participated in activities with family members. Fewer adolescents were involved in activities with peers, with the majority of peer activities being organized, around sports. The most common reasons for students not being involved in activities with peers were their disability and lack of available supports. However, the researchers failed to explore the other dimensions of self-concept and examined only the social domain in great detail.

#### **2.2.4.3 Adults with Intellectual disability**

Dixon, Craven and Martin (2006) studied two groups of adults with intellectual disability from two institutions. One group were being prepared to move to community living (Movers) and the other group were staying at their residential setting (Stayers). All of the participants had an IQ within the range of 56-75 for those with mild intellectual disability and within the range of 45-56 for those with mild-moderate intellectual disability. Multidimensional self-concept was measured by Self Description Questionnaire-III (SDQ-III) (Marsh, 1989; Marsh & Craven, 1997) and the Coopersmith Self-esteem Inventory (SEI) (Adult Version) Short Form (1981) was used to assess global self-esteem. Dixon et al. (2006) reported differences on the SDQ-III Academic subscale and SDQ Maths subscale where the Stayers had significantly higher academic self-concept scores than the Movers. In relation to the SDQ Emotion and Physical Ability ( $p < .05$ ), the Stayers had higher scores and in the Honesty subscale ( $p < .05$ ), the Movers had significantly higher Honesty scores compared to scores for the Stayers (Dixon et al., 2006). According to Dixon et al. (2006), these differences may be accounted for by the differences in mean age between these two groups. They further substantiated that the Academic and Maths subscales could be explained by changes in educational practices for people with mild intellectual disability given that younger people have been exposed to more appropriate educational programs in comparison to older people. They further argued that younger people have had less time to lose their academic skills. Similarly, Dixon et al. (2006) claimed that the difference between the Physical Ability subscales could relate to the fact that the participants in Stayers were younger and were all in employment. The descriptive results of the Coopersmith Self-Esteem Inventory (1981) showed that participants with mild intellectual disability (even

after being exposed to good facilities) had low to average self-esteem compared to the normative groups on this measure, suggesting this as an area worthy of investigation (Dixon et al., 2006).

Duvdevany (2002) compared the self-concept of individuals with intellectual disability who participated in integrated recreation activities with non-disabled people and their counterparts who participated in segregated recreation programmes in Israel. The results obtained found that the physical and overall self-concept of individuals with intellectual disability who participated in integrated programmes was higher than of those of the individuals who participated in segregated programmes.

Garaigordobil and Pérez (2007) analysed the self-concept and self-esteem of individuals with and without intellectual disability and explored whether there were gender differences in these variables in both the groups. The sample included 170 participants aged 19 to 40, 128 without disability and 42 with intellectual disability. The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) and the “Listado de adjetivos para la evaluación del autoconcepto en adolescentes y adultos” (LAEA; Garaigordobil, in press) instruments were administered to the subjects. The results revealed that participants with intellectual disability scored significantly lower in self-concept and self-esteem than the participants without disabilities; however no significant gender differences were noted in any variables in either of the two groups.

Yet another study, by Li, Tam and Man (2006) investigated the self-concept of Chinese adults with intellectual disability in Hong Kong. Face-to-face and individual interviews were conducted in Cantonese, using the Chinese version of the Adult Source of Self-Esteem Inventory (ASSEI) (1989) together with three open-ended questions to explore

the participants' self-conceptions in different life domains. A sample of 135 adults with intellectual disability were interviewed. The findings showed that the family self, the social self and achievement in school and work were the self-concept attributes most important to the participants. The respondents with intellectual disability had a higher total self-concept than that of a comparison group of people without disabilities when the participants used the in-group social comparison to maintain positive self-perception. The possible explanation is that almost three quarters of the participants in this study completed special education and most of them were in segregated vocational settings, and thus they were quite likely to adopt the in-group social comparison strategy as suggested by other research studies (Duvdevany, 2002).

To summarise, the research studies on participants with intellectual disability presented some limitations. Some of the researchers (Taylor et al., 1987; Zic & Igric, 2001) in their sample included participants with intellectual disability with IQ scores above the accepted upper limit for the mild intellectual disability range. Therefore, there is doubt and suspicion about whether their samples can be truly regarded as representing the diagnosed intellectually disabled. Secondly, while one group of researchers analysed self-concept through a single score (Garaigordobil & Pérez, 2007; Silon & Harter, 1985), another group investigated self-concept in relation to peer relationships only (Abells et al., 2008; Stanovich et al., 1998; Zic & Igric, 2001) and there were yet others who either studied self-concept in relation to physical abilities and social self (Donohue, 2008) or attempted to study the family, academic and social self (Li et al., 2006). Only, Tracey and Marsh (2002) and Duvdevany (2002) used the multidimensional self-concept in their studies involving children with mild intellectual disability, or in comparing respondents in mainstream and segregated settings. None of

the other researchers investigated self-concept in its multi-faceted and varied dimensions in respondents with intellectual disability. This research addresses the gap and measures a far greater differentiation of self-concept in relation to the physical, moral, personal, family, social, academic and total self-concepts in students with diagnosed mild intellectual disability. In addition, it can be inferred from the literature presented above that research in the area of self-concept in students with intellectual disability is still in its embryonic stage. There has been a dearth of research in Australia in relation to the topic concerned, thereby justifying the use of South Australia as the context for the present study.

### **2.2.5 Impact of School Placement on Self-Concept**

Begley (1999) compared the self-concept of students with Down syndrome aged 8–16 years across school placement, age, and sex. No significant difference was attributed to age or sex. Students in mainstream placements generally had more positive self-concepts than students in schools for children with moderate disability. In the Glenn and Cunningham (2001) study which was designed to investigate the usefulness of self-esteem measures with young people (17– 24 years) with Down syndrome, the researchers used the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (PSPCSA) (Harter & Pike, 1984) and the Joseph Pre-School and Primary Self-Concept Screening Test (Joseph, 1979) to assess the less able participants (mean verbal mental age of 5 years 9 months). The researchers found that the participants did not respond randomly, but seemed to deliberately search for the most positive statement and hence, all rated themselves positively. They concluded that the self-perceived competence of these young people did not match the measures of competence for this population. The participants with higher mental ages (mean verbal

mental age of 8 years 9 months) whose self-concept was measured using the Self-Perception Profile for Learning Disabled Students (Renick & Harter, 1988), while still reported as having a high self-esteem, appeared to be more realistic in their perception of their competence. Cunningham and Glenn (2004) further claimed that children with intellectual disability were particularly susceptible to developing low self-concept due to impaired cognitive ability, stigma, and internalizing negative labels example 'slow' or 'retarded'. Cunningham and Glenn (2004) also found that only individuals with verbal mental ages of eight years and above were able to make the necessary social comparisons to enable them to have a realistic self-concept. These researchers also found that the self-concept of young people with Down syndrome was not affected by experience in mainstream education. They argued that those with higher mental ages were more likely to be attending mainstream classes. They further stated that even those attending special schools would have sufficient contact with mainstream institutions to make the necessary comparisons for establishing self-concept if they were cognitively 'ready' for this. The impact of mainstream educational environments on the self-concept of students with intellectual disability clearly needs further investigation because the researchers perceived the mainstream interaction of students with Down syndrome to be contingent on their higher mental age. If higher mental age became the sole factor for positive self-concept and greater mainstream integration for these students, then the question of truly including diagnosed students with intellectual disability comes under question and doubt as students with diagnosed intellectual disability usually have mental age lower than their chronological age.

Huck, Kemp and Carter (2010) found that children with intellectual disability who were included in mainstream classes in Sydney, Australia remained positive at an age when

self-concept is likely to be negatively impacted by comparisons with higher performing peers. The researchers conducted their study on children with intellectual disability whose mean chronological age was nine years. Participants with intellectual disability have lower mental ages as compared to their chronological ages, therefore, in this study it can be inferred that the mean mental age of students with intellectual disability must be lower than nine years. As such, it becomes questionable as to how accurately the respondents have answered questions about difficult concepts such as participants' perceived cognitive competence and perceived peer acceptance. Another limitation of this study was that not all children were fully included into mainstream classes when the data were collected.

Tracey and Marsh (2002) in a sample of 211 students with mild intellectual disability aged 7 to 13 years used the Self Description Questionnaire I–Individual Administration (SDQI-IA) to assess the multidimensionality of participants' self-concepts and to understand the impact of educational placement (mainstreamed or non-mainstreamed classes) on children's self-concepts. Confirmatory factor analyses indicated the presence of all eight SDQI-IA factors (average factor loading = .80) in their sample of children with mild intellectual disability. Furthermore, correlations between self-concept domains (factors) were low, indicating that children with mild intellectual disability differentiated between various self-concept areas. Unlike typically developing preadolescents whose general self-esteem is most highly associated with physical appearance, these children's general self-esteem was most highly related to their general-school self-concept according to Tracey and Marsh. They also found that students with mild intellectual disability placed in special classes reported significantly higher academic self-concepts compared to their counterparts placed in regular classes.



Similar results were obtained by Crabtree (2003) who found that adolescents with mild intellectual disability in special schools had higher academic self-concepts than adolescents with mild intellectual disability in regular schools but that there was little difference between these groups in terms of non-academic components of self-concept. Crabtree concluded that “integration does not have its expected positive effect on self-concept. . . students integrated into mainstream schools may face greater levels of stigmatization than those attending special schools” (p. 284). Contrary to this notion, Marsh, Tracey and Craven (2006) found preadolescents with mild intellectual disability had lower self-concepts in segregated classes than in regular classes for three academic self-concept scales (reading, math and general-school) and, to a lesser extent, in peer relationships and global self-esteem. However, similar trends were not observed by these researchers for the other three non-academic components of self-concept (physical ability, appearance, and parent relationships).

### **2.2.6 Impact of Stigma on Self-Concept**

Research has shown that people with an intellectual disability experience stigma (Beart et al., 2005; Hastings & Remington, 1993). Jahoda, Markova and Cattermole (1988) conducted interviews with twelve adults with intellectual disability aged between 21-40 years. The researchers found that while all participants with intellectual disability were aware of the stigma attached to them, only three regarded themselves as essentially different from people without intellectual disability and held a handicapped view of themselves.

Perception of stigmatization has been associated with lower self-esteem, self-concept and psychopathology in people with an intellectual disability and in other stigmatized groups (Abraham et al., 2002; Dagnan & Waring, 2004; Paterson, McKenzie, &

Lindsay, 2012; Szivos-Bach, 1993). Early work by Szivos (1991) with adolescents with intellectual disability indicated that those who were most often being stigmatized had the lowest self-esteem. Abraham et al. (2002) also found a negative correlation between self-esteem and perceived stigma in adults with an intellectual disability. Similarly, Dagnan and Waring (2004) noted a significant relationship between the negative evaluations people with an intellectual disability made about themselves and their scores on a measure of stigma perception. They concluded that core negative beliefs about the self are related to the extent to which people feel different (i.e. are aware of stigma) and suggested this may be a result of the group internalizing the stigma they faced. Recent research by Paterson et al. (2012) examined the perception of stigma in adults with an intellectual disability, the relationship this has with their psychological well-being and whether the process of social comparison has a moderating effect on this relationship. The results indicated that perception of stigma was found to be significantly related to negative social comparisons, which in turn strongly related to low self-esteem.

Enhancing self-esteem/self-concept is widely regarded as a desirable goal for the general population, but it is of particular importance for people who have a higher incidence of failure, who lack control of their lives and who may be perceived as vulnerable, such as those with disabilities (Craven et al., 2003; Zetlin & Turner, 1988). Persons with intellectual disability frequently encounter certain negative experiences (e.g. perceived intellectual inadequacy, a disproportionately high incidence of academic and social failure, social stigmatization and discrimination, unemployment and underemployment) and they are generally viewed as being at risk for low self-concepts (Elbaum & Vaughn, 2001). Unless self-concept is closely monitored, many

interventions and much educational and vocational training effort will be rendered ineffective for this cohort (Marsh & Johnston, 1993), making it a critical area for investigation.

### **2.3 Why Study Test Anxiety?**

Examinations, tests and other forms of assessments are a considerable source of worry and stress for school students in any educational context (Hodge et al., 1997; Jegede et al., 1996; Kouzma & Kennedy, 2004; Kyriacou & Moutantzi, 2003 as reported by Putwain, 2008, p. 319). Students with special educational needs are no exception. Test anxiety is becoming increasingly prevalent across grade levels and across different populations of students (Casbarro, 2004). Reports of students who cannot sleep the night before an important test or who vomit on the day of the test are increasing (Casbarro, 2004). The phenomenon of test anxiety is real, occurring in many learners. Trent and Maxwell (1980) characterise test anxiety as having potentially detrimental effects and Hill and Wigfield (1984) have gone as far as to say that it can actually create an “invisible disability” (p. 107). Test anxiety has been regarded as a relevant and highly complex issue in academic settings, one that can hamper academic success in students with high academic potential (Neuderth, Jabs, & Schmidtke, 2009). Every year, millions of students under-perform in school and university because of heightened test anxiety (Rezazadeh & Tavakoli, 2009). According to Rezazadeh and Tavakoli (2009), as the test anxiety level of a student increases, his/ her educational achievement decreases and vice-versa, confirming a negative relationship between the two. Students with high levels of test anxiety feel tense and worried in evaluative situations (Gierl & Rogers, 1996) with the result that they do not perform up to their potential when they take tests (Hancock, 2001; Hembree, 1988). Test-anxious students are

reported to have lower standardised achievement test scores (Everson, Millsap, & Rodriguez, 1991), they experience more difficulty with learning new material in the classroom (Chapell et al., 2005) and attain poor classroom performance (Cassady & Johnson, 2002; Chapell et al., 2005). Poor motivation, negative self-evaluation and concentration difficulties have been found among test anxious students (Swanson & Howell, 1996). Students with high levels of test anxiety have a higher rate of school dropout (Schaefer et al., 2007; Tobias, 1979) and generalized anxiety (King, Mietz, Tinney, & Ollendick, 1995) and are known to produce psychic problems that can result in suicidal behaviour (Schaefer et al., 2007). Ninety-one percent of the students with high test anxiety also suffer from social anxiety, specific phobias and/or from other mental disorders (Schaefer et al., 2007). Left untreated, many of these negative effects of test anxiety are reported to increase in severity over time (Swanson & Howell, 1996). This makes test anxiety, a critical area of concern requiring immediate investigation and further study.

### **2.3.1 Past Achievements and Present Developments**

Research on test anxiety has a long and fruitful history (Zeidner, 1998). While the first studies relating to test anxiety date back as early as 1914 (Folin, Demis, & Smillie, 1914), test anxiety entered the stage of scientific investigation under its own proper name in 1952 when Mandler and Sarason (1952) published a series of studies on test anxiety and how it relates to performance. Mandler and Sarason (1952) provided researchers with an instrument namely the Test Anxiety Questionnaire, to assess individual differences in test anxiety in adults.

The development of another instrument namely the Test Anxiety Scale for Children followed a few years later to assess test anxiety in children (Sarason, Davidson,

Lighthall, Waite, & Ruebush, 1960). These two questionnaires became the standard assessment tools for test anxiety research and granted a sound basis for many advances in test anxiety research in the years to come.

In the 60s and early 70s, a number of conceptual advances became evident in the field of test anxiety, out of which two turned out to be influential in test anxiety research: the first was the distinction between anxiety as a transitory state and anxiety as a stable personality trait (Cattell & Scheier, 1961; Spielberger, 1972); and the second was the distinction between two basic dimensions in the experience of test anxiety, namely worry and emotionality (Liebert & Morris, 1967; Morris & Liebert, 1970). Research conducted by Liebert and Morris (1967) revealed that test anxiety can be comprised of two major components. The first factor was worry, which comprised the psychological or cognitive aspect about the consequences of failure in a testing situation. The second component was emotionality which was related to the physical reactions to test situations, such as nervousness, sweating, constantly looking at the clock, pencil-taping and so on. Morris and Liebert (1970) also found that the factor of worry had a stronger negative relationship with performance outcomes than emotionality, in a group of high school students. Similar views were confirmed by Hembree (1988) that the worry component played a stronger role in test anxiety compared to the emotionality factor and caused lower performance by students. In fact, other modern researchers, like Stöber and Pekrun (2004) also thought that there was a direct link between lower test performance and worry. This suggests that it is the cognitive concerns or thoughts about the testing situation that actually have the greatest impact upon performance under such conditions.

Following these conceptual advances, the 70s and 80s witnessed major advances in model construction (particularly cognitive models of test anxiety), research and applications. These advances resulted in a sizeable body of cumulative research findings as demonstrated by an increasing number of scientific publications on test anxiety (Stober & Pekrun, 2004). Gaudry and Spielberger (1971) found a reversal effect that high-anxious subjects performed better than low-anxious subjects on simple tasks but performed more poorly than low-anxious subjects on complex tasks. In 1984, Hill and Wigfield estimated that in elementary and secondary schools, as many as 10 million students perform more poorly on tests than they should because anxiety and worry interfere with their actual performance. It should be emphasized that this estimate of 10 million was made in 1984—28 years ago. With the growth in student population and the exponential increase of standardized testing in recent years, it is likely that this figure has risen dramatically (Daugherty, 2006). Hembree (1988) integrated the results of 562 studies by meta-analysis to show that test anxiety causes poor performance. He reported test anxiety is inversely proportional to students' self esteem and directly proportional to their fears of negative evaluation, defensiveness and other forms of general anxiety. The difference in test anxiety levels was attributed to a student's ability, gender and school grade level according to Hembree (1988). He prescribed a variety of treatments that he claimed were effective in reducing test anxiety. Ollendick, King and Frary (1989) found test anxiety to be detrimental in the performance of American and Australian children and adolescents, although they found that fear of failing a test was seen to increase slightly with age. Choi (1998) studied whether or not locus of control differentially influences students' test anxiety across multiple choice formats and essay format. His results showed that students were more anxious about

essay tests than multiple choice tests. Zeidner (1998) perceived test anxiety to be a set of physiological, psychological and behavioural reactions that strongly relate to the negative thoughts of failure on an exam or in a similar performing situation. The relationship between test anxiety and failure in an evaluative situation is also found in the works produced by Sarason, Sarason and Pierce (1990). Similar results were observed by Everson et al. (1991) that test anxiety has a negative effect on the academic performance of students. However, after a peak in the 80s and 90s, the number of scientific publications on test anxiety started to decrease, a trend that still continues today (Zeidner, 1998).

Sporadic studies conducted in the 2000s observed no apparent trends of test anxiety casting a detrimental effect on students' performance. However, McDonald (2001) identified test anxiety to be a major source of concern to many children in compulsory education. He further claimed that the overall prevalence of test anxiety appears to be increasing, possibly due to increased testing in schools and pressures associated with this. Dowd (2002) said that anxiety has been regarded as a predictive factor of low self-concept. However, contradictory results were observed by Wills and Leathem (2004) who investigated the effects of test anxiety on the performance of 45 normal participants whose ages ranged between 16 to 54 years. The level of anxiety was measured by a short form of state anxiety and the researchers claimed test anxiety had no significant effect on the performance of the participants. These disparity in findings from the works of Wills and Leathem (2004) could be attributed to the fact that they studied individuals up to 54 years of age who were out of their school and college days and probably test anxiety to them did not affect their current performance level. However, based on the literature, test anxiety represents an important testing artefact

that detracts from accurate measurement of a student's true level of academic knowledge or skill.

### **2.3.2 Prevalence of Test Anxiety**

In previous studies, “estimates of the percentage of students who suffer from test anxiety have ranged from approximately 1% to 40%” (Cizek & Burg, 2006 as cited in Bradley et al., 2007, p. 11). Such wide variability is likely due to the different populations studied and to differences in the instrumentation and operational definitions employed (Bradley et al., 2007). For example, “a study giving an estimate of 1.1% refers only to those students who worry about making mistakes” (Beidel, 1991 as cited in Bradley et al., 2007, p. 11) whereas “another study that estimated 10% refers to only elementary students who are highly anxious” (Erford & Moore-Thomas, 2004 as cited in Bradley et al., 2007, p. 11). “Higher estimates of test anxiety were provided by studies which found that 25% to 30% of participants which only included children suffering from stress in testing situations” (Hill, 1984 as cited in Bradley et al., 2007, p. 11), while “41% of African-American students in the third through sixth grades were found to be significantly affected by test anxiety” (Turner, Beidel, Hughes, & Turner, 1993 as cited in Bradley et al., 2007, p. 11). This paucity of data on the general incidence of test anxiety does not appear to have improved much in the last decade or so. Zeidner (1998, p. 6) stated that “the data on the prevalence and incidence of test anxiety were surprisingly sparse”. However, more recent studies estimated that more than 33% of school-age children and adolescents experience some test anxiety (Methia, 2004). The prevalence of estimates reported suggest that test anxiety has increased over time, possibly due to an increase in testing and testing requirements in schools (Casbarro, 2005; Wren & Benson, 2004). The prevalence estimates reported also



suggest that test anxiety is a widespread phenomenon (Zeidner, 1998), affecting many students negatively (Casbarro, 2005; Cizek & Burg, 2006; McDonald, 2001; Swanson & Howell, 1996).

Here, it needs to be noted that the data on the prevalence of test anxiety which was considered sporadic and scantily available was on the general population that is on students who are non-disabled and students with special educational needs and disabilities were left out from the domain of test anxiety research.

### **2.3.3 Factors causing Test Anxiety**

Young (1991) indicated that students experience anxiety if the test involves content that is not taught in class. Another factor he claimed that increases test anxiety and affects performance is time constraints. According to Ohata (2005), learners sometimes worry when they anticipate that they have to organize their ideas in a short period of time. Inappropriate testing techniques are another among the many factors affecting test anxiety (Ohata, 2005). Young (1991) found that despite having studied for hours for a test, some students still suffered from test anxiety. These students claimed that the reason was mainly due to different question types in a test which they had no experience of at all. Sometimes it is the type of test that leads to test anxiety according to Choi (1998). He believed that some students become anxious during exams that require them to demonstrate their knowledge in ways in which they are not at ease. For example, some students panic when they find they have to take essay tests. Others become anxious over oral exams (Choi, 1998). Different types of tests can make students anxious and suffer from test anxiety (Van Blerkom, 2009). Hembree (1988) found a number of conditions that could give rise to test anxiety which included ability,

gender and school grade level. Other research studies suggested a difference in test anxiety responses between males and females (King et al., 2000); with females generally found to have higher levels of test anxiety symptoms than males (Cassady & Johnson, 2002; Chapell et al., 2005; Rezazadeh & Tavakoli, 2009; Seipp & Schwarzer, 1996; Trifoni & Shahini, 2011; Wren & Benson, 2004). Ohata (2005) revealed yet another dimension. He found that most of the participants in his study admitted that they feared taking tests; simply because of the test-taking situations and the fact they were being examined which made them fearful about the negative consequences of receiving a poor grade. Recent research by Trifoni and Shahini (2011) found that students worry during tests especially when it is a surprise test or a final exam. Students' emotions have also been found to play negatively on students' performance in a test (Trifoni & Shahini, 2011). Therefore, the literature on test anxiety clearly identified some of the factors that influenced students' adverse reactions to tests such as test validity, time limits, test techniques, test formats, length of tests, the testing environment, clarity of test instructions, gender, grade level and emotions experienced by students in a testing situation. However, what these researchers failed to investigate was whether or not any kind of impairment/ disability could be a factor in the students' ability to take tests. The gap in the literature portrayed that most of the studies on test anxiety had been conducted on students who are non-disabled; and students with special educational needs and disabilities who are also put into testing situations in schools have mostly been neglected from the research arena. Some scantily available research exploring the test anxiety of students with disabilities, particularly emphasizing learning disabilities are outlined in the following sections.

### **2.3.4 Test Anxiety and Students with Disabilities**

Peleg (2009) found that Arab adolescents with learning disabilities in Israel who attended only special schools reported higher levels of test anxiety than their non-disabled peers. He claimed that the intense distress experienced by these students was expected to impair their academic performance. Students with learning disabilities are hypothesized to have basic psychological and/or neuropsychological deficits that impede their ability to perform well in basic academic areas (Swanson, 2005). These problems increase the likelihood that classroom tests will be regarded as a substantial threat, thus increasing test anxiety (Hancock, 2001). In fact, studies have shown that students with learning disabilities experience greater difficulties in testing situations than students without learning disabilities (Bryan, Sonnefeld, & Grabowski, 1983; Heiman & Precel, 2003; Kovach, Wilgosh, & Stewin, 1998; Swanson & Howell, 1996). Swanson and Howell (1996) examined the relationship between test anxiety and academic achievement, academic self-concept, cognitive interference, and study habits in a sample of 82 students with learning disabilities and behaviour disorders. Swanson and Howell (1996) found that test anxiety was positively correlated with cognitive interference and negatively correlated with study habits, academic achievement, and academic self-concept for students with special needs. In a study conducted by Hughes (1991), students with learning disabilities self-reported that they had difficulties when studying for and taking exams; 84% of these students with learning disabilities requested and received test accommodations. During exams, students with learning disabilities reported more stress, nervousness, frustration, helplessness, and uncertainty than students without learning disabilities. Students with learning disabilities also had more concentration difficulties in evaluative situations than their peers without learning

disabilities (Heiman & Precel, 2003). Bryan et al. (1983) indicated that out of 60 subjects in Chicago, 30 who were learning disabled were more anxious than their non-disabled counterparts and that their test anxiety was significantly related to reading and mathematics achievements scores. Students with learning disabilities' test anxiety scores were a significant predictor of their reading and mathematics achievement test scores (Sena, Lowe, & Lee, 2007). Ford, Pelham and Ross (1985) studied the test anxiety of students with attention deficits with and without a reading disability. They found that older students with reading disabilities were higher test-anxious compared to those without a reading disability.

Therefore, the literature demonstrates that students with learning disabilities are subjected to higher amounts of test anxiety in any evaluative situation. However, it must be noted here that much of the test anxiety research has focused on students with learning disabilities, and students with other kinds of disabilities have not been as well represented as the former group. In addressing this gap, the present study investigates the test anxiety in students with vision impairment and those with intellectual disability and in this way adds to the body of literature on individuals with disabilities.

### **2.3.5 Test Anxiety and Vision Impairment**

Evans, Fletcher and Wormald (2007) found that people who are vision impaired had a higher prevalence of depression compared to sighted people. They suggested that people who are vision impaired are more likely to experience problems with functioning, which in turn leads to depression. Rees et al. (2010) found vision-specific distress to be the strongest predictor of depression among people with vision impairment in Melbourne, Australia. However, they failed to investigate any

association between vision impairment and test anxiety within this cohort. Poorya, Hassan and Farzad (2011) found that there were no significant differences between blind and sighted students from schools of Khorasan Razavi Province, Iran in maths test anxiety. The interview responses revealed that continuous failure in previous maths exams led students who are blind to believe that maths achievement was not important for them, causing them to be less anxious during a maths test. However, the researchers above investigated only the mathematics anxiety in blind subjects and did not study test anxiety in relation to any examinations in general. On the contrary, Eniola (2007) established that students who are vision impaired were subject to greater amounts of anxiety when compared to their sighted peers and this was found to affect their performance in school. Asonibare and Olayonu (1997) and Okwilagwe (2001) went on to assert that due to the modern day complex living students in the general educational sector performed more poorly in academics compared to the past. For students with vision impairment, this problem of low achievement in academics has been greatly pronounced due to factors like society's attitude towards them, lack of motivation on the part of parents, lack of specialised teaching and suitable learning facilities for them (Eniola, 2007). When research has established that there is a strong connection between higher anxiety levels and poor academic performance in students with vision impairment, apparently there has been no research to date to study the test anxiety in students with vision impairment.

### **2.3.6 Test Anxiety and Intellectual Disability**

Over the past several decades, an impressive amount of research has been conducted in the field of test anxiety and some research has been directed towards students with learning disabilities and their test anxiety. However, less effort has been directed

towards the examination of test anxiety in relation to students with intellectual disability.

Cooray and Bakala (2005) pointed out that certain factors, such as poor social support and coping skills, can increase the risk of anxiety in people with learning disabilities, including intellectual disability. Therefore, it can be inferred that lack of social support from non-disabled peers in the classroom and inability to manage and cope with one's condition can cause test anxiety in students with intellectual disability. Scruggs (1984) concluded that students with mild disabilities differed from their peers without disabilities in that the former were not as likely to have positive attitudes toward test-taking or to spontaneously employ test-taking strategies, but that such skills could be significantly improved differentially for various subgroups of children. In addition, de Decker et al. (2003) and Yousefi et al. (2010) conclusively supported the relationship between test-anxiety and memory deficits. They showed that anxiety, worry and subjective stress were significantly related to the retrieval of specific memories. Eysenck (2001) also found that there was a significant relationship between a high level of test anxiety and lowered cognitive performance. Vasa et al. (2007) indicated that there was a significant difference between visual memory and anxiety disorder i.e. respondents' who experienced high test-anxiety had lower memory scores compared to respondents who did not experience test-anxiety. Stenager, Knudsen and Jensen (1994) found that anxiety was a sign of cognitive dysfunction. Hembree (1988) also found that high levels of test anxiety have been shown to be negatively correlated with intelligence quotient (IQ). Therefore, from the literature it can be safely concluded that there is an inverse relationship between test anxiety and cognitive functioning that is students with low IQ are predicted to have high test anxiety. To diagnose students with intellectual

disability, since low IQ scores are considered one among many other factors (Diagnostic & Statistical Manual of Mental Disorders-IV-TR, APA, 2000), it is surprising that the test anxiety of this cohort of the population (students with intellectual disability) have been unexplored.

High-stakes testing has consequences for students with special needs across all levels of education, as standardized testing has become the ‘centrepiece of accountability’ in the K-12 education setting (Brinckerhoff & Banerjee, 2007). According to Wachelka and Katz (1999, p. 1), test anxiety “is like a benign problem to some people, but it can be malignant” particularly for students with special needs when it leads to high levels of distress and academic failure in otherwise capable students. As test anxiety is common in older students with special needs, it is surprising that little research has been done on it (Wachelka & Katz, 1999). The literature review shows that there has been a lack of studies on test anxiety in adolescents and adults either having vision impairment or intellectual disability. Much of the research has been conducted in schools in the United States. There has been a particular dearth of research in Australia; South Australian schools have been chosen as the preferred context for this research. One of the goals of this study is to provide current data on test anxiety for students with vision impairment and those with intellectual disability from South Australian schools by measuring test stress for these students using an established, sound measurement instrument: Test Anxiety Inventory (Spielberger et al., 1980).

According to Tapasak and Walther-Thomas (1999), research with special populations, such as students with disabilities, inevitably experiences the difficulties of small sample sizes and potentially weak experimental designs. Ethical considerations, as well as

inadequate research design, have meant that many studies have simply compared two highly non-equivalent intact groups (Battle, 1979; Tapasak & Walther-Thomas, 1999). Such limitations weaken the validity and generalisability of research findings. In an attempt to overcome this limitation, the present research at no stage has compared the self-concept and test anxiety findings for participants with vision impairment to that of the participants with intellectual disability; however, the findings for the two dissimilar, highly non-equivalent disability groups are reported separately.

Some researchers, to boost participant numbers, have included students with a diverse range of disabilities into their studies and improperly made conclusions about the group as a whole (Battle & Blowers, 1982; Calhoun & Elliott, 1977; Stanovich, Jordan, & Perot, 1998; Tapasak & Walther-Thomas, 1999). This study has included students from two disability groups, however, the findings, interpretation and conclusions derived are separate and distinct for the two groups of disabilities and not collated into one set of findings.

## **2.4 Why Study Support Services?**

The support services that are provided in the mainstream and specialist DECD schools in South Australia for students with vision impairment and those with intellectual disability are outlined in the following sections. The information is based on material available from DECD, websites and schools that have specialised provision for one or other of these two groups of students. It has not proved possible to locate other literature on this topic because as yet it is a comparatively unresearched area.



### **2.4.1 Support Services for Students with Vision impairment**

The Vision Support Program supports students who are totally blind or have low vision because they require specialised support and resources to participate fully in the regular school curriculum (DECD, 2012b). Students with vision impairment participate in all areas of the school curriculum and are involved in many extra curricula areas of school life (DECD, 2012a). These students are also supported with a Negotiated Education Plan (NEP) to access, participate and achieve within the mandated curriculum (DECD, 2012a). Adaptive equipment and specialised resources are available (DECD, 2012b). Students with vision impairment are supported by teachers and experienced School Service Officers (SSO's) qualified in the education of students with vision impairment (C. Palmer, personal communication, May 30, 2011). Usually, a high level support would be a teacher student ratio of 1:4 for students with vision impairment (J. Barrett, personal communication, May 11, 2011). Alternative Braille/tactile, large print and audio taped materials, talking and large display calculators, special lighting equipment, closed circuit televisions, magnification software and screen reading for computer access, mobility devices (long canes), specialised storage systems and typing stands are provided for individual student needs (Charles Campbell College, 2012). The support services available also can be in the form of resources such as low vision devices, large print books, sloping desk tops, dark lined stationery, audio equipment, specialised materials for Braille and independent living for students with vision impairment (DECD, 2012b).

The support services include some in-class support of students, generally in practically orientated areas or where specialised equipment is used. Withdrawal of students is negotiated on an individual basis and is, dependent on the student's vision loss and

curriculum needs. Withdrawal may be required for the use of specialised equipment, additional time and support for tests, additional time for work completion and training in relevant areas of the extended core curriculum for students with vision impairment (Charles Campbell College, 2012). Students with vision impairment require access to specific teaching in areas of the expanded core curriculum which encompasses the explicit skills and knowledge that a student with vision impairment will need to be as independent as possible in school and post school life (Charles Campbell College, 2012). The support also includes the use of low vision devices, adaptive technology, adaptive computer skills, orientation and mobility and transition to post school options (Charles Campbell College, 2012). The orientation and mobility programme includes independence in the school environment, residential travel, route planning and execution, travel planning resources and using the public transport (Charles Campbell College, 2012).

#### **2.4.2 Support Services for Students with Intellectual disability**

The support services in South Australia for students with intellectual disability and their families include information provision about the condition of impairment, counselling, advocacy, networking to bring families together and providing referrals to other agencies (my Dr from MIMS, 2012). Specific programs and/ or curriculum modifications are implemented for students with intellectual disability (wherever necessary) to ensure that the student achieves the identified learning outcomes specified in the NEP. The support can also include advice on peer awareness programs, sexuality and human relationship programs, friendships, independent living, post school options and work experience for students with intellectual disability (my Dr from MIMS, 2012). Students with intellectual disability have often, but not always some level of teacher

aide support and curriculum modifications in the form of modified materials and differentiated resources (DECD, 2012a). Support teachers work on a one-on-one basis with students with intellectual disability in many areas of the curriculum in mainstream and specialist schools (DECD, 2012a).

### **2.4.3 Need for Research on Support Services**

In spite of the provision of these support services to students with vision impairment and those with intellectual disability, there has been a dearth of studies to document the influence of these support services on the lives of students with vision impairment and those with intellectual disability. In particular, no research to date has studied the influence of these support services provided in South Australian mainstream and specialist schools on these students' problem solving skills, family, social and academic lives and test anxiety. During preliminary informal contact with class teachers in the two areas of disability, the several teachers mentioned the need for research on the impact of support services provided for students with vision impairment and those with intellectual disability. This research is designed to contribute to filling this gap. One of the aims of the present research is to study whether the support services provided in schools for students with vision impairment and those with intellectual disability influenced these students' problem solving skills, family, social and academic lives and test anxiety.

## **2.5 Chapter Summary**

This chapter revealed a whole landscape of relevant issues related to the self-concept and test anxiety of individuals with disabilities, in particular students with vision impairment and those with intellectual disability. Collectively the research studies sketch a holistic picture of the current state of research on self-concept, test anxiety and support services for individuals with vision and/or intellectual impairments. As a result of this review of previous research it was possible to identify the two theoretical frameworks which were most appropriate for use in this study. These are detailed in Chapter 3.

## **CHAPTER 3: THEORETICAL BACKGROUND**

### **3.1 Introduction to Self-Concept**

One of the most complex terms found in psychology is ‘self’ (Rosenberg, 1989). The exact time of its origin is still unknown. In early periods, it was the province of philosophers, and was fostered for many years under their care. To them it was a phenomenon of subjective realization that is, the realization of the soul and beyond sensory claims (Castell, 1965).

However, being liberated from philosophical thought it became of interest to psychologists, sociologists and many others and in the wave of modern psychology, the term ‘self’ began to be viewed as an observable measurable phenomenon (Rosenberg, 1989). Therefore, Rosenberg (1989) claimed that the manner in which different psychologists defined it became more realistic but not fully detached from subjective experience. In order to evolve an operational meaning to the term, as well as to understand the developmental background of the subject, a theoretical framework for the analysis of self-concept needs to be provided.

According to Jung (1915) the ‘self’ is an archetype which develops during mid-childhood and represents the reconciliation and fusion of opposites, the Conscious (CS) and the Unconscious (UCS). Jung argued that the self is the centre of personality, providing stability and equilibrium. It does not develop until the other aspects of the personality are developed and individualized. By ‘self’ Adler (1930) means a subjective system which allows experiences to become meaningful for the individual and provides a framing to seek experiences which will fulfil the person’s life style. The self, it is argued, gives meaning to life, creating the goal of life as well as helping to fulfil it.

Sullivan (1953) defined self as the concept of self system. This suggests a secondary dynamism dissociated from the rest of the personality, the organisation of which controls awareness. This analysis includes the personified self, as well as the process by which anxiety provoking experiences and perceptions are kept from awareness. Alternatively, Rogers (1959), purports that 'the self' is the portion of the personality which consists of perceptions of 'I' or 'me' and develops out of the organism's interaction with the environment. The developing 'self' strives for consistency, interjects the value of others which may be perceived in a distorted way, and changes as a result of maturation of learning.

James (1890) wrote extensively about the self as an object of knowledge. According to him 'self' is that which a person considers part of or representing himself or herself. He argues that there are many selves representing an individual, such as the material self, the social self and the spiritual self. Cooley (1902) suggested that people perceive themselves as they might perceive their image in a mirror and in fact he described this conception as the 'looking-glass self'. Later, Freud (1945) adopted the term 'ego' to refer to this organized aspect of personality and numerous other theorists have adhered to this usage. In Warren's (1962) Dictionary of Psychology, 'self' is defined as an individual regarded as conscious of his/her own continuing identity and of his/her relation to his/her environment.

On the basis of the above definitions the term 'self' will be used in this study to mean traits and characteristics which make up the individual and consists of perceptions of 'I' or 'Me', as defined by William James (1890). The self is not the sudden outburst of the traits or characteristics of an individual. It follows a process of development and

gradually unfolds itself through certain stages (Loevinger, 1966), and is continually in a state of evolution.

### **3.2 The Structure of Self-Concept**

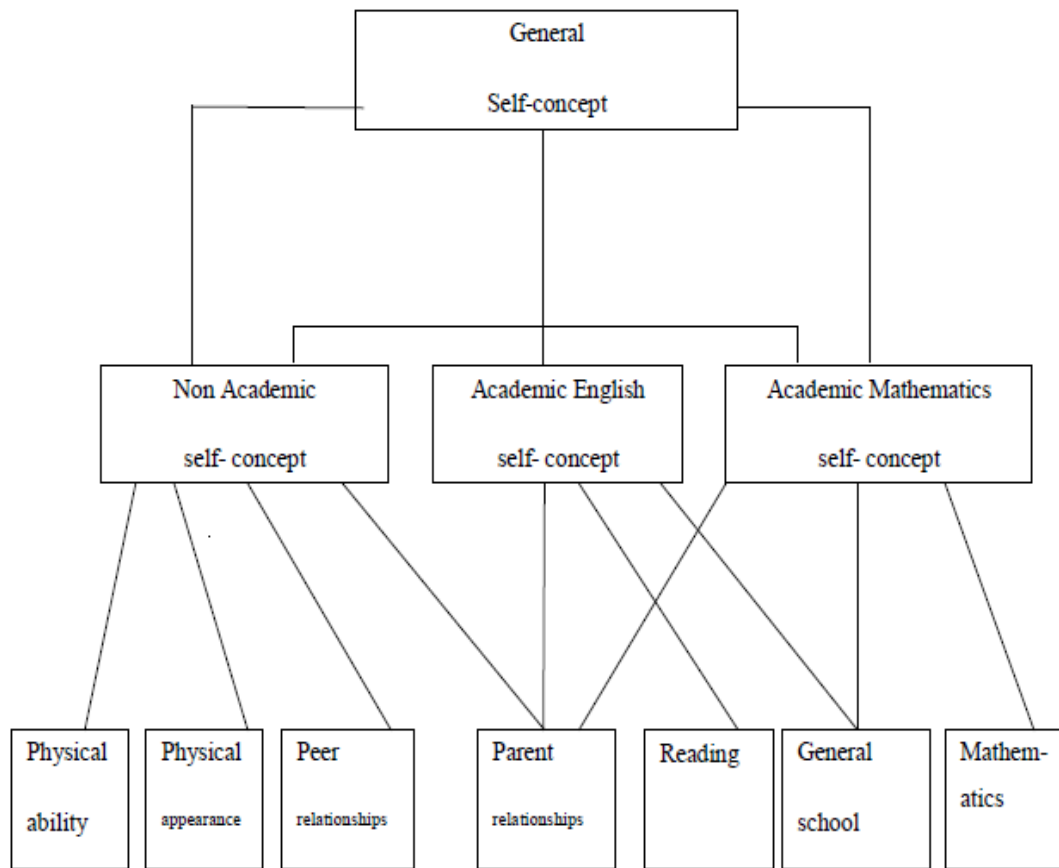
Historically, self-concept has been examined as a uni-dimensional construct comprising a general or overall self-concept. Coopersmith (1967, p. 6) claimed that “children make little distinction about their worthiness in different areas of experience or, if such distinctions are made, they are made within the context of the overall, general appraisal of worthiness that the children have already made”. Over a decade later Marx and Winne (1978) also concluded that “self-concept seems more of a unitary concept than one broken into distinct sub-parts or facets”, as cited in Craven and Yeung (2008, p. 270). Research utilising a uni-dimensional model of self-concept typically demonstrated self-concept across a range of general contexts representing a single score based on an average of the total score of items measuring self-concept, supposed to reflect an individual’s sense of self across the various areas of his or her life.

The validity of the one-dimensional model has been seriously challenged in later years and criticised by researchers who advocate that self-concept is a multidimensional construct (Harter, 1990; Little et al., 1990; Marsh, 1988; Marsh & Gouvenet, 1989). Over the past decade a substantial amount of research on construct validity, led by Marsh and his colleagues (Marsh & Hattie, 1996), have demonstrated self-concept to be multidimensional (Byrne, 1984; Marsh & Gouvenet, 1989). Studies conducted with adolescents with mild disabilities have also successfully identified multiple self-concept facets for these students (Little et al., 1990). Self-concept theorists have argued that a general score often masks or veils important distinctions that individuals make about their competence and capabilities in different dimensions of their lives (Harter, 1990).

“This agglomerate use of general self-concept is particularly dubious and probably led to many of the contradictory findings which abound in self-concept research” (Marsh, 1988, p. 40).

In an effort to remedy some of these weaknesses, Shavelson et al. (1976) developed a hierarchical, multifaceted model of self-concept. They proposed a highly influential theoretical view of the self that has received further research confirmation (Byrne & Shavelson, 1996). Shavelson et al. (1976) described self-concept as a person’s perceptions of self formed through attributions of one’s own behaviour, influenced by interactions with significant others and experience with one’s environment. In this model children’s general self-concept is represented as two main domains: academic and non academic self-concepts. Academic self-concept is further divided into specific school subject areas such as mathematics, science, English and social studies. The non-academic self-concept is divided into social, emotional and physical self-concepts. This last domain is further subdivided into physical ability and physical appearance (Broderick & Blewitt, 2006, pp. 212-213). The Marsh and Shavelson (1985) model also indicates that the non-academic self-concept is divided into physical ability, physical appearance, peer relationships and parent relationships, emphasizing the multi-dimensionality of self-concept. Figure 2.1 illustrates the multi-faceted model of self-concept adapted from Marsh and Shavelson (1985).





**Figure 3.1 Self-Concept: Its Multifaceted, Hierarchical Structure (Adapted from Marsh & Shavelson, 1985, p. 114)**

Fitts and Warren (1996) developed the Tennessee Self-Concept Instrument to confirm the multi-faceted structure of self-concept. This has been employed successfully by a number of researchers over the last decade in their studies involving students with vision impairment and those with intellectual disability. Lo'pez-Justicia and del Carmen Pichardo (2001) and Al-Zyoudi (2007) conducted research on students with vision impairment to evaluate their many dimensions of self-concept, specifically physical, personal, moral, social, family and academic self-concepts, using Tennessee Self-Concept Instrument. Duvdevany (2002), too, studied the same dimensions of self-concept in individuals with intellectual disability in mainstream and segregated settings. Yet another study by Tracey and Marsh (2002) confirmed the multidimensionality of

self-concept in children with mild intellectual disability. Recent studies like Bolat et al. (2011) and Halder and Datta (2012a) who conducted research on students with and without vision impairment, using the Piers-Harris Children's Self-Concept Scale (2002), confirmed that students with vision impairment, like those without vision impairment, were able to develop multi-faceted domains of self-concept which included behaviour, intellectual and school status, physical appearance and attributes, anxiety, popularity and happiness and satisfaction. These researchers developed a far greater differentiation of self-concept compared to the Shavelson et al. (1976) and Marsh and Shavelson (1985) models. These research studies confirmed that students with vision impairment and those with intellectual disability, much like their non-disabled peers, were able to differentiate and hold views on the diverse and varied dimensions of self-concept. In view of the recognition, acceptance and inclusion of the different and multiple dimensions of self-concept, the Tennessee Self-Concept Scale: Second Edition, as streamlined and updated by Fitts and Warren (2003), was employed in this research to measure self-concept across its different dimensions in students with vision impairment and those with intellectual disability.

The Tennessee Self-Concept Scale: Second Edition (2003) measures the non-academic self-concept with particular reference to Physical, Moral, Personal, Family and Social dimensions. The test includes an additional Academic/Work score that tells how respondents see themselves in school and job settings. It does not measure outcomes in the form of different school subjects. Therefore, the Tennessee Self-Concept Scale: Second Edition measures the different dimensions of self-concept that were derived largely from the Shavelson et al. (1976) model, the Marsh and Shavelson (1985) model and other recent research studies. These dimensions of self-concept are the basis of this

research and have been identified as the themes under which the questionnaire and interview responses were analysed. The interview analysis also followed these themes in the questions raised in the interviews.

Specific theories to understand how the self-concept functions in the experience of students with disabilities are discussed in the following sections.

### **3.3 Social Comparison Theory**

In recent years, social comparison theory has emerged as a highly regarded theory in self concept formation. According to this theory, one's self-concept is largely determined by the ways in which one perceives or comprehends significant others in the environment. The origin of research interest in social comparison processes can be attributed to Festinger (1954), who noted that there seems to be a strong impetus in most individuals to assess and appraise their opinions and abilities against an established standard. In the absence of some definite and explicit objective criteria, people usually identify and compare with others in the environment as the basis for forming subjective estimates of their personal ability levels and self-worth. Festinger (1954) maintained that individuals need to compare themselves to others in order to define the self, and then pass judgement on their verdict. In this way, individuals use others in their immediate environment as the basis for forming comparative subjective judgments of self worth (Festinger, 1954). The perceived similarity between two individuals increases the likelihood of them comparing their capabilities with one another. People usually select similar others as a basis of social comparison when faced with a choice between relatively similar and dissimilar people. It is thought that social

comparison processes are affected by the particular reference group the individual is employing.

Social comparison theory (Gibbons, 1986; Szivos-Bach, 1993), speculates that people with disabilities living in the community will make comparisons with other non-disabled groups and it is likely that their self-concept will decrease because of negative frames of reference effects. Research based on social comparison theory emphasises that, in situations where the self-concept is in jeopardy, there are three possibilities: people may minimise or limit comparisons (Brickman & Bulman, 1977), avoid upward comparisons (Steil & Hay, 1997) or try to self-enhance by engaging in downward comparisons (Crocker, Thompson, McGraw, & Ingerman, 1987). In situations where the self-concept is endangered people may prefer to compare themselves with inferior others. This may result in an enhancement in self-concept and an increase in subjective well-being because of employing downward comparisons (Gibbons, 1986).

Veroff (1969) indicated that young children are not able to spontaneously exercise social comparison information, as Festinger's theory would suggest, until after the early years of schooling. Ruble, Boggiano, Feldman and Loebel (1980) found that self-evaluations of children at different age levels did not employ social comparison feedback until at least seven years of age. Research has substantiated that preschool children do not use social comparison for self-appraisal because they find it difficult and complex (Ruble, 1983; Veroff, 1969). Therefore, the social comparison theory comes into play during and after late childhood, through adolescence and adulthood, which were the chosen stages for the sample collected for this study.

### **3.4 Big Fish Little Pond Theory**

The big fish little pond effect, based on social comparison theory, anticipates that students with mild disabilities have higher academic self-concepts when they are placed in a special class of other students with disabilities as they are able to compare themselves with parallel, mediocre or inferior others. The big fish little pond effect states that individuals have a tendency to compare themselves with others around them when forming their self-concept. Therefore, it is likely that if students with mild disabilities are placed in regular classes with peers without disabilities who perform better academically, then the self-evaluations and appraisals of students with mild disabilities will be adversely affected, and their academic self-concept abridged (Marsh, 1984). As intellectual dimension is the only criterion to have its frame of reference related to placement in regular or special classes, it follows that the negative effects of regular classes are limited primarily to the academic components of self-concept and the damage is substantially smaller for non-academic (e.g. social, physical) components of self-concept.

### **3.5 Labelling Theory**

The Labelling theory, in contrast to the social comparison and big fish little pond theories, predicts that students with mild disabilities when placed in special classes with other students with mild disabilities have lower self-concepts. Labelling theory argues that the identification, isolation and segregation of these students in separate placements produces alienation, stigmatisation and a sense of deviance, and thereby fosters a negative self-concept (Goffman, 1963). This theory also anticipates that placement in a special class has adverse or negative effects, particularly on the general self-concept

and is likely to influence both academic and non-academic components of self-concept. According to Stobart (1986), labelling and stigmatisation are seen to occur most often when students are placed in special classes as a result of their disability diagnosis. This claim has been widely supported by many other researchers who have argued that applying labels to children and segregating and excluding them from the mainstream school population results in stigmatisation and a concomitant reduction in self-concept (Burbach, 1981; Cole & Meyer, 1991; Guskin, Bartel, & MacMillan, 1975; Thomas, 1997).

### **3.6 Test Anxiety**

Test anxiety is a state that manifests when a student experiences distress, worry, and increased nervousness in response to a testing, evaluation or performing condition (McDonald, 2001). In this regard, test anxiety is situational. The student may not feel anxious in other settings or in response to other commitments, but he/she may regularly experience increased worry and apprehensions in an examination (Bradley et al., 2007).

People who experience test anxiety, according to Supon (2004), report a mix of unpleasant experiences. They can have physical changes, which may include muscle tension, butterflies in the stomach, or sweaty palms. Emotional symptoms may include feeling worried, afraid, and/or being easily frustrated. Children who experience test anxiety also report having more negative thoughts in a testing situation, which they often report in terms of self-critical comments like 'I am going to fail' or 'I just don't know enough to do well' (Bradley et al., 2007).

Anxiety in general is a very disruptive emotional experience and test anxiety in particular can be problematic because it makes it harder for a student to think clearly at

a time when they most need to do so (Bradley et al., 2007). Everyone experiences some anxiety from time to time and it is very reasonable to feel anxious about one's performance on a test. It is when the anxiety is excessive, severe enough to interfere with thinking, or inhibits one's performance in an exam, rather than motivating one to perform well, that it is a problem (Akgun & Ciarrochi, 2003).

Anxiety is an area that has been widely researched in the recent past. It is common to divide anxiety into two dimensions: trait anxiety and state anxiety, a classification first made by Spielberger (1972). Trait anxiety is the inclination of an individual to perceive many situations in life as dangerous and threatening. State anxiety, in contrast, is the perception of a particular emotional situation as unpleasant accompanied by a physical reaction connected to the autonomic nervous system (Spielberger, 1972). Test anxiety, one of the focuses of this study, is a form of state anxiety. Test anxiety can affect people of all ages and in every sphere of life whenever people have to be evaluated, assessed, and examined with regard to their abilities, achievements or performance (Spielberger, 1972).

Liebert and Morris (1967) used a two-dimensional conceptualization to define test anxiety which consisted of two major elements: worry and emotionality. Using Liebert and Morris's (1967) two-dimensional construct, Spielberger and colleagues (1980) constructed their Test Anxiety Inventory (TAI). The Spielberger Test Anxiety Inventory (TAI) is the most commonly used and validated self-report instrument for measuring test anxiety and has been utilized in the majority of recent studies of students' test anxiety (Bradley et al., 2007). The TAI constructs of worry and emotionality are defined as follows: (a) worry is cognitive distress connected to the

testing situation; it consists of negative performance expectations or worry about the testing situation and (b) emotionality is the affective dimension; it refers to the physical reactions of students to the testing situation (Spielberger et al., 1980). Examples of such a reaction can be nervousness, fear and physical discomfort.

Test anxiety reduces the performance of those who experience it (Sarason, 1980). In addition, it causes emotional suffering (BenDov, 1992). Birenbaum and Nasser (1994) claimed that test anxiety has become one of the most disruptive factors in school and other settings where testing is performed. They argue that 30% of all students suffer from various levels of test anxiety. Hong (1998) claimed that test anxiety is “a complex multidimensional construct involving cognitive, affective, physiological, and behavioural reactions to evaluative situations” (p. 51). A somewhat different viewpoint was presented by Einat (2000), who claimed that severe test anxiety is caused by high personal standards of students who expect maximum success and are afraid that they cannot meet their own standards. Such test-anxious students see the test situation as threatening, and often react by worrying and thinking irrelevant thoughts that interfere with effective performance.

In children and adolescents, test anxiety has been found to produce low academic performance and poor results (Bryan et al., 1983; Chapell et al., 2005; Goetz, Preckel, Zeidner, & Schleyer, 2008; Plass & Hill, 1986; Zatz & Chassin, 1985) and self-defeating intrapersonal and interpersonal behaviour patterns (Sarason & Koenig, 1965; Sarason & Palola, 1960; Wine, 1971). The negative effects of test anxiety on performance in school and on intelligence tests, achievement tests and classroom exams have made this an area of critical concern (Bryan et al., 1983).



Children with learning and intellectual disability and behaviour disorders exhibit higher levels of test anxiety than do their peers without disabilities (Bryan et al., 1983; Cizek & Burg, 2006; Rizzo & Zabel, 1988). Little research exists, however, concerning the causes, effects, and treatment of test anxiety in the special population.

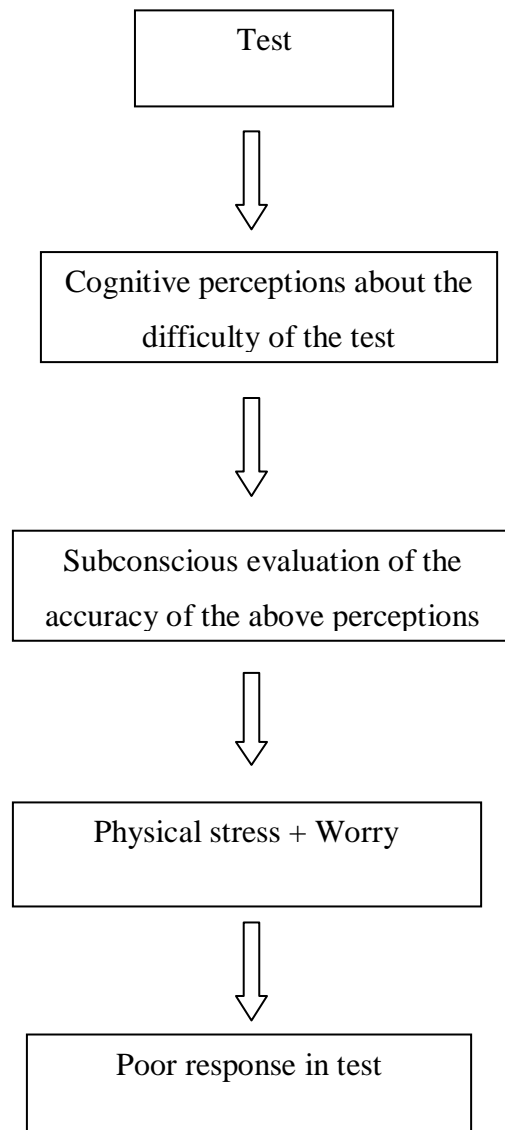
### **3.7 A Cognitive Model of Test Anxiety**

Most research on test anxiety and correspondingly, interventions for addressing it, adopt a primarily cognitive perspective, giving primacy to the cognitive processes that influence the anxiety response. Building upon Lazarus's (1966) conception of stress as a 'transactional process,' Spielberger (1966, 1976) developed a model of test anxiety which distinguished between the stress associated with testing situations (the stressor), the subjective evaluation of the degree of threat which a given test poses to the individual (the threat), and the emotional state of anxiety evoked in the individual in response to the perceived threat (anxiety reaction). These may include feelings of tension, apprehension, nervousness, and worry, and the associated physiological arousal generated by activation of the autonomic nervous system.

The premise of the Spielberger model is that the intensity of the anxiety reaction "will vary as a function of the degree of perceived threat" (Spielberger & Vagg, 1995, p. 6). In other words, the anxiety reaction is driven by a cognitive evaluation of the perceived potential threat posed by a test. In short, the model views test anxiety as the outcome of a specific temporal sequence of events (Spielberger & Vagg, 1995, pp. 6-7):

Stressor → Threat → Anxiety

According to Spielberger's model, the process can be described in 5 steps.



**Figure 3.2 The model of test anxiety (Adapted from Spielberger & Vagg, 1995; Cizek & Burg, 2006)**

According to Spielberger's model, the process starts when a person is faced with a challenging and difficult task, such as a test. The second step in the process is the formation of cognitive perceptions about the difficulty and intricacy of the task. These perceptions are influenced by the amount of preparation and groundwork the individual has undertaken (knowledge and study skills) and his or her perceived test-taking skills.

The next step involves the subconscious internal appraisal of the accuracy and precision of these perceptions. This appraisal is continuing and recurring as the student constantly reforms perceptions about self and the task and evaluates the accuracy of these perceptions. For students with relatively higher levels of trait anxiety, the internal perceptions and appraisals result in a view of the situation as threatening. This, in turn, increases the bodily/autonomic stress responses (often termed as emotionality) and worry, which interfere with the thinking processes of the individual. All of these summative effects influence the last step in the process, the response produced in testing situations. The response can facilitate or hamper test performance, but fails to measure the student's true level of knowledge or skill only in the latter situation (Cizek & Burg, 2006; Spielberger & Vagg, 1995). Around the same time Morris and Liebert (1970) also identified worry and emotionality as two components of test anxiety and established that the factor of worry had a stronger negative relationship with performance outcomes than emotionality, in a group of high school students. Similar views were confirmed by Hembree (1988) that the worry component played a stronger role in test anxiety compared to the emotionality factor and caused lower performance by students.

The basis of this study was the Spielberger and Vagg model of 1995 which describes the two ways test anxiety manifests itself explicitly, the cognitive perceptions that a student can have about the difficulty of the test (termed as worry), followed by the exhibition of physical stress and reactions (termed as emotionality) by the student. Zeidner (1998) also perceived test anxiety to be a set of psychological, physiological, and behavioural reactions that strongly relate to the negative thoughts about failure in an exam or a similar performing situation. The psychological reactions used in

Zeidner's (1998) definition relates to worry, while the physiological and behavioural reactions used in Zeidner's (1998) definition relates to emotionality, as these terms were used by Spielberger and Vagg (1995) in their model. Other modern researchers, like Stöber and Pekrun (2004) established that there was a direct link between lower test performance and worry.

The Spielberger et al. (1980) Test Anxiety Instrument employed in this study measures two components, worry (defined as the psychological or cognitive concerns and distress about the consequences of failure in a testing situation) and emotionality (defined as the physical and bodily reactions experienced by students in a testing situation). It further measures the total test anxiety which is seen as the sum of worry, emotionality and another four items.

The models on self-concept and test anxiety do not encompass the area of student support services for students with vision impairment and those with intellectual disability. Because it is an under-researched area, no theoretical frameworks have yet emerged to guide researches.

### **3.8 Chapter Summary**

Chapter 3 has outlined the self-concept and test anxiety frameworks employed in this study. Both are viable and tested frameworks which are able to be operationalized for the collecting and analysing of self-concept and test anxiety data from the two specialised groups of respondents which are the focus of this study. An overview of the self-concept theories that underpinned this study was also provided. The research methods for this study are detailed in Chapter 4.

# **CHAPTER 4: METHODOLOGY AND RESEARCH METHODS**

## **4.1 Introduction**

Research methods according to Crotty (1998, p. 3) are “the techniques or processes used to gather or analyse data related to some research question or hypothesis”, while the notion of methodology “constitutes the link between the paradigm-related questions and the methods (O’Donoghue, 2007, p. 12). Methodology is “the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes” (Crotty, 1998, p. 3). In this study, the methodology employed was predominantly qualitative with some quantitative dimension in the form of descriptive statistics. Therefore, the methods used were survey questionnaires and interviews.

## **4.2 The Qualitative Methodology**

According to Palmer (2003, p. 96), “qualitative methodology enables researchers to collect richer data, greater density of information, more vivid description and clarity of meaning that generally cannot be acquired through quantitative measures”. She stated that “qualitative research methods recognise the multiple realities of situations and interpretations, and their quality and character depend on the circumstances in which the research is conducted” (p. 96). Unlike quantitative research methods, which rely on the accumulation of facts and their translation into numbers, qualitative research identifies and describes (Palmer, 2003).

Qualitative research is often exploratory or interpretative in nature. Qualitative methods illuminate, explain, and interpret rather than verify. Burns (2000) claims that the “qualitative mode of inquiry is characterised by methodological eclecticism, a hypothesis free orientation and an implicit acceptance of the natural scheme of things” (p. 13). He went on to say that qualitative research involves methods of enquiry that can play an important role in examining relationships, suggesting causes and effects, and evaluating dynamic processes in school settings. In other words, qualitative research enables a deeper understanding, “an insider’s view of the field” (p. 13). The strength of qualitative research is that the quality of the participants’ responses is examined, rather than just the response itself. Burns also states, “qualitative methods can highlight subtleties in pupil behaviour and response, illuminate reasons for action and provide in-depth information on interpretation” (p. 13). In methods such as interviews, interaction between the investigator and participants occurs, providing the researchers with a clearer picture of the subject’s perspective, and enabling them to “construct social reality [and to] focus on interactive processes” (Neuman, 2000, p. 16), and consider the “changing nature of reality” (Guray, 1989, p. 5). “Qualitative research is a form of systematic empirical inquiry into meaning” (Shank, 2006, p. 5). Shank (2006) argues that qualitative research is any form of inquiry that depends upon the world of experience in some fundamental way. He further claims that the qualitative researcher develops a “rich, deep, thick, textured, insightful and best of all illuminative picture of the phenomenon or situation” (p. 5). Qualitative methodology was chosen for this research because it is a good way to tap into participant’s thoughts and experiences to understand them. This research was guided by the interpretative approach. “Interpretation is a productive process that sets forth the multiple meanings of an event,

object, experience, or text” (Denzin & Lincoln, 1998, p. 322). Interpretation is illuminative; it throws light on the respondents’ experiences (Denzin & Lincoln, 1998). Seen in this light, the qualitative researcher’s task is to understand these experiences.

### **4.3 The Quantitative Methodology**

According to Creswell (2008), quantitative data involve the use of numbers to summarise, describe, predict and explore relationships. He further substantiated that quantitative paradigm relies on control, statistics, measurement and experiments. Quantitative research can be experimental or non-experimental (McMillan & Wergin, 1998). In a non-experimental study, McMillan and Wergin (1998, p. 4) explain that the “investigator is interested in studying what occurs ‘naturally’”. These studies are used to describe phenomena and uncover relationships. Quantitative research places an emphasis on searching for facts and causes of human behaviour through objective, observable and quantifiable data. In human research, according to Guray (1989), limitations exist in the fact that subjects are seen as passive/reactive organisms, even though their behaviour is complex. There are also a large number of variables that impinge on human activity, with the result that researchers focus on some aspects of behaviour while ignoring others. Guray (1989) proposes that the main strength of quantitative research is that it yields precision and can be reproduced. This study was quantitative in that information that could be summarized as descriptive statistics were gathered. Best described as the backgrounding phase aimed at identifying potential issues of interest, questionnaires helped to determine the scores of the adolescents and young adults who are either vision impaired or intellectually disabled in South

Australia. Questionnaires helped to identify the students with low and/or high scores in the two main facets studied, self-concept and test anxiety.

## **4.4 Research Procedures and Methods**

This research was divided into two stages of execution. In Stage 1, survey questionnaires were administered to students with vision impairment and those with intellectual disability to determine the scores of self-concept and its dimensions, as well as the scores of test anxiety and its components. The Welch independent t-tests were also employed to find out whether there were any significant differences across gender for the two disability cohorts in the scores of self-concept and its dimensions and the scores of test anxiety and its components. In Stage 2 of this research, interviews were conducted with students with vision impairment and those with intellectual disability, their parents and their teachers to provide insights into what these students were able to achieve in the different dimensions of self-concept and the reasons for high or low self-concept and test anxiety experienced by these students. The interviews also aimed to determine whether the support services provided in schools for students with vision impairment and those with intellectual disability had any influence on these students' problem solving skills, family, social and academic lives and test anxiety.

### **4.4.1. Survey Questionnaires**

According to Creswell (2008), survey designs are procedures in which the researcher administers a survey or questionnaire to a small group of people (called the sample) to identify trends in attitudes, perceptions, behaviours or characteristics of a large group of people (called the population). In this procedure, survey researchers collect numbered



data using questionnaires and statistically analyse the data to describe trends about responses to questions and to test research questions or hypotheses (Creswell, 2008). They also interpret the meaning of the data by relating results of the statistical test back to past research studies (Creswell, 2008).

#### **4.4.2 Interviews**

A qualitative interview occurs when the researcher asks one or more participants general, open-ended questions and records their answers. The researcher then transcribes and types the data into a computer file for analysis (Creswell, 2008). Open-ended questions allow participants to voice their experiences unconstrained by any perspectives of the researcher or past research findings (Creswell, 2008). Such semi-structured interviews allow “greater depth than is the case with other methods of data collection” (Cohen & Manion, 1989 as cited in O’Donoghue, 2007, p. 133). Interviewing has a wide variety of forms. The most common type of interviewing is individual, face-to-face verbal interchange (Denzin & Lincoln, 1998) which was used in this study for most students with vision impairment and those with intellectual disability and teachers. However, interview can take the form of mailed or self-administered questionnaires (Denzin & Lincoln, 1998) which was also used in this study for some adult students with vision impairment, a few teachers and all parents.

#### **4.5 The Pilot Study**

A pilot study was conducted on students with vision impairment and those with intellectual disability in South Australia prior to the major data collection to test the appropriateness and robustness of the two survey questionnaires namely the Tennessee

Self-Concept Scale: Second Edition and the Test Anxiety Inventory. Both sets of questionnaire were on the enlarged print format for students with low vision. The purpose of the pilot was to establish whether the questionnaires in its existing form were appropriate to the respondents. This followed the procedure adapted by Palmer (2003) for her social competence study of students with albinism, students with vision impairment but not albinism, and students with no vision problems. It was found that both the students with vision impairment and those with mild intellectual disability comprehended and easily responded to the questions asked in the surveys and therefore, the two survey questionnaires were found suitable and appropriate to be administered to students with either vision impairment or mild intellectual disability in South Australia.

The questions on the interview protocol were also trialled with people known to the researcher in order to refine questioning techniques and question structure prior to the formal interviews beginning, a technique also recommended by O'Donoghue (2007). To ensure that no emotional discomfort was experienced by any of the students, parents and teachers, the survey questionnaires and the interview questions were piloted with all three groups to identify potential problems. In the administration of the interview question on the social self-concept, teachers considered it inappropriate for students to be asked "Who do you like or dislike and why"? This approach could encourage students to think negatively about peers. As a result, a more appropriate form of the question was substituted, and students were asked "Who do you like to mix with and why"?

The survey questionnaires and the interview questions were also checked by active researchers from two universities and vetted by professionals from the field of special

education. Participants in the pilot study were informed of their right not to answer questions that caused them discomfort.

## **4.6 The Main Study**

In Stage 1 of this project, the use of the two questionnaires was appropriate to provide answers to the first four research questions stated in Chapter 1. The Tennessee Self-Concept Scale: Second Edition was administered to determine the self-concept scores across the dimensions and the total self-concept and the Test Anxiety Inventory was administered to determine the test anxiety scores across the components and the total test anxiety of the students with vision impairment and those with intellectual disability. From this students with low and/ or high self concept scores and high and/ or low test anxiety scores could be identified. It was also possible to determine whether there were any significant differences between female and male students with vision impairment and those with intellectual disability in self-concepts and test anxieties. Questionnaire data provided the basis for further and subsequent qualitative exploration.

Questionnaires and interviews can be successfully combined when the former reveals that “deeper exploration of the subject is necessary” (Kaufman, Guerra, & Platt, 2006, p. 115). Hence, the purpose of Stage 2 interviews with specific students with vision impairment and those with intellectual disability, their parents and teachers was to understand why the self-concept was low or high and why the test anxiety was high or low in the students under study. The interviews also helped to determine whether the support services provided in schools for students with vision impairment and those with intellectual disability influenced these students’ problem solving skills, family, social and academic lives and test anxiety. In Stage 2, the remaining research questions stated

in Chapter 1 were answered by conducting interviews with the three groups of participants in the two disability cohorts. Multiple interviews enabled the researcher to collect data from a range of viewpoints and to examine the research questions from different perspectives.

## **4.7 Stage 1 Survey Questionnaires**

Stage 1 involved the administration of Tennessee Self-Concept Scale: Second Edition (Appendix A) developed by Fitts and Warren (2003) and Test Anxiety Inventory (Appendix B) developed by Spielberger et al. (1980) to students with vision impairment and those with intellectual disability.

### **4.7.1 Tennessee Self-Concept Scale (TSCS: 2)**

The Tennessee Self-Concept Scale: Second Edition (TSCS:2) has been updated and streamlined by Fitts and Warren (2003) to provide researchers and clinicians with materials that are easy to use, yet which retain the characteristics that have given the test such a wide appeal over the past several decades. Although inefficient and outdated items have been eliminated and scoring procedures have been simplified, most of the original items have been retained and the obtained scores are psychometrically equivalent to their counterparts in the 1988 edition. An Academic/Work Self-Concept scale has been added. In addition, the TSCS: 2 have been re-standardized on a nationwide sample of over 3,000 individuals ranging in age from 7 to 90 years old. There are two forms of the TSCS: 2- The Adult Form and the Child Form. The Adult Form has 82 items and the Child Form has 76 items. Both forms consist of self-descriptive statements that allow the individual to portray his or her own self-picture

using five response categories-‘Always False’, ‘Mostly False’, ‘Partly False and Partly True’, ‘Mostly True’ and ‘Always True’. The forms can be administered individually or in groups, and can be completed in 10 to 20 minutes. The Adult Form is standardized on 1,944 individuals aged 13-90 (Fitts & Warren, 2003). The TSCS:2 Adult Form is appropriate for adolescents in high school and for adults (ages 13 and older) and therefore, only the Adult Form version of the questionnaire has been used in this research as the age range of the students in this study was between 15-25 years. The Adult Form can be completed by individuals who can read at approximately a third-grade level or higher (Frye, 1972; Thomas, Hartley, & Kincaid, 1975 as cited in Fitts & Warren, 2003). The Flesch Reading Easy Score for the Adult Form is 89% (Flesch, 1979) indicating very easy reading hence quite suitable to be administered to students with mild intellectual disability. The basic scores are the six self-concept scores namely Physical, Moral, Personal, Family, Social and Academic/Work and the summary score i.e. the total Self-Concept score. The external scales—Physical, Moral, Personal, Family, and Social—are similar to the traits posited on many subsequent instruments (Marsh & Shavelson, 1985). Four Validity Scores for examining response bias within the Tennessee Self-Concept Scale: Second Edition are Inconsistent Responding, Self Criticism, Faking Good and Response Distribution. Over the course of many years of development and use, the Tennessee Self-Concept Scale (TSCS: 2) has been found to produce reliable and valid results (Fitts & Warren, 2003). It has been shown to be reliable across time, have internally consistent scales and reflect coherent personal attributes (Fitts & Warren, 2003). It is valid both when compared to other accepted psychological instruments and when distinguishing among various groups (Fitts & Warren, 2003). The internal consistency estimates for the TSCS: 2 Adult Form scores

range from .73 to .95. The test-retest reliability and the validity scores for the TSCS: 2 Adult Form is .82 and .31 respectively (Fitts & Warren, 2003).

#### **4.7.2 Test Anxiety Inventory (TAI)**

The Test Anxiety Inventory (TAI), developed by Spielberger et al. (1980), is the most commonly used validated self-report instrument for measuring test anxiety and has been utilized in the majority of more recent studies of student test anxiety (Bradley et al., 2007). The TAI provides a global measure of test anxiety as well as a separate measurement of two theoretically relevant components defined as ‘worry’ and ‘emotionality.’ The ‘Worry’ construct, which has been found to be most strongly correlated with depressed test performance in students with high test anxiety (Bradley et al., 2007, p. 17), is essentially a measurement of the psychological aspects of test anxiety (i.e. thought processes and emotions relating to the fear of testing and dread regarding the potential for negative evaluation or failure). The ‘Emotionality’ construct provides a measure of the physical symptoms of test anxiety, e.g., nervousness, sweating, fidgeting, etc (Bradley et al., 2007, p. 17). The Cronbach Alpha results for Total Test Anxiety was 0.92, for Test Anxiety Worry was 0.87 and for Test Anxiety Emotional was 0.90 respectively (Spielberger et al., 1980; Bradley et al., 2007). The pattern of correlations of the TAI scales with the Sarason's (1978) Test Anxiety Scale (TAS), the Liebert and Morris's (1967) Worry and Emotionality Questionnaire (WEQ), and the State Trait Anxiety Inventory (STAI) A-Trait and A-State scales provide evidence of the concurrent and construct validity of the TAI scales (Spielberger et al., 1980).

### **4.7.3 Administration**

Each individual student was provided with a copy of the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory. The administration setting was comfortable, well lighted, ventilated and free from noise and other distractions as possible. The questionnaires were administered to the students with vision impairment and those with intellectual disability on a one-on-one basis. The students were directed to fill in the demographic information and the date, and to read the instructions carefully. The researcher ensured that the instructions were carefully understood by the respondents. There was no time limit for the questionnaires, although respondents were discouraged from spending a great deal of time on any one item. Respondents were instructed to provide only one answer to each item, and if unsure, to answer according to what was most generally and recently true for them. Since the administration was on a one-to-one basis, the researcher ensured that students responded to all the items. When administering both the questionnaires to students, the researcher read the directions aloud while the students read them silently. If questions arose during the administration session, the researcher's response was supportive but noncommittal, for example, 'Please give the answer that best describes how you generally feel'.

The total time estimated to fill out the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory by the students with vision impairment and those with intellectual disability was 45 minutes to one hour. Upon completion, questionnaires were collected by the researcher to maintain student confidentiality. The Information Sheet, the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory for the students with low vision was on the enlarged print format and for

some blind students it was in the Braille format. The majority of the adult students with vision impairment could sign their name on the Consent Form. If not they made a cross and a witness signed to verify their consent. The self-concept and test anxiety questionnaires on the enlarged print format were prepared by the researcher herself and the questionnaires on the Braille format were prepared at the Braille Unit in the school for students with vision impairment where prior contact had been established by the researcher. The Information Sheet and Consent Form for the adult students with mild intellectual disability were provided in simple language and the research project was explained to them by the researcher in the presence of a witness. For students in the two disability groups, the items on the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory were read aloud by the researcher wherever they needed it as administration was on a one-on-one basis. Participation by students was purely voluntary and confidentiality was strictly maintained.

#### **4.7.4 Respondent Recruitment**

This study used the Purposive Sampling method, which is a kind of non-probability sample based upon the typicality of the cases to be included in the sample (Singh, 2006). The researcher considers that the sample selected is a very good representative of the population. Singh (2006, p. 352) explains that the researcher identifies the participants in such a way that the selected sample yields as quickly as possible the same averages and proportions as the totality has with respect to the characteristics to be studied. The purposeful sampling technique is defined as “researchers intentionally selecting individuals and sites to learn or understand the central phenomenon” (Creswell, 2003, p. 204). Data collection was conducted in mainstream and specialist



schools and Technical and Further Education (TAFE) Institutes in South Australia. The schools and TAFE Institutes were contacted by the researcher via telephone or e-mail. A letter outlining the research along with the University of Adelaide and Department for Education and Child Development (DECD) previously known as Department of Education and Children's Services (DECS) Ethics approval documents were sent to the Principal. The names and the contact details of the students were accessed through school and institute records with prior permission obtained from the Principal. Some of the adult students with vision impairment and those with intellectual disability were contacted via organisations that provided support to people with vision impairment and to people with intellectual disability. Names and addresses were forwarded by the organisations when permission for participation in the study was provided by the participant. Students (above 18 years) were given the Information Sheet and Consent Forms personally by the researcher and the purpose of the study was explained to them. Students with mild intellectual disability (above 18 years) were provided with a less complex Information Sheet and Consent Form. The researcher personally collected the Consent Forms from students (above 18 years) where consent was given freely. If necessary, the researcher read and explained the documents to the student in the presence of a witness to ensure that they understood the nature and requirements of the project in order to obtain informed student consent. For students below 18 years, the Information Sheet and Consent Form were provided to their parents/guardians/care givers either through the students carrying it to their homes or by post (the pack included self addressed paid envelopes as well). Similarly, the Consent Forms were returned to the researcher in a manner that the students brought it back to the school from where the researcher collected it or it was mailed directly to the researcher by the

parents. Copies of the letter to the Principal, all information sheet and consent forms are displayed in Appendices C, D, E, F, G, H and I, respectively. The questionnaires were administered to students during school and institute working hours in their premises and for some adult students the venue for administration of questionnaires was often a common place accessible by both the student and the researcher. All students who participated in Stage 1 of the study were clearly informed that their details would be kept strictly confidential. A good rapport was established between the research participants and the researcher during the administration of questionnaires. They were informed that they were able to withdraw at any time during the research project and assurance was provided to the students that their abrupt withdrawal would not affect their academic performance or their position in the school/institution.

#### **4.7.5. The Participants**

In this study, adolescent and adult students from all levels of vision impairment were included. The visual acuity of the participants ranged from 6/18 or less (low vision) to 3/60 and less (blindness) and all types of vision impairment (whether it was congenital or adventitious) were included. This study also included adolescent and adult students with only mild intellectual disability. Adolescent and adult students with moderate, severe and profound intellectual disability were excluded as it would be difficult for them to comprehend the items in the questionnaires and answer independently.

A total of 25 students with vision impairment and 20 students with mild intellectual disability completed the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory. These two student samples were matched in terms of the following characteristics:

- Age - age range between 15 -18 years for the adolescent students and between 19-25 years for the adult students;
- Education level - Year 9-Year 12 for the adolescent students and full time vocational courses for the adult students;
- Schools - there are three sectors of education in South Australia namely the Catholic Education System, Association of Independent Schools of South Australia (AISSA) and Department for Education and Child Development (DECD). Technical and Further Education (TAFE) is one of the post school options in South Australia. This study focussed only on the schools run by DECD and the TAFE Institutes because both are owned and operated by the Government of South Australia.

The range of students (adolescents and adults) according to gender is presented in Table 4.1.

**Table 4.1 Students according to gender**

	Male	Female	Total
Adolescent + Adult students with vision impairment	12	13	25
Adolescent + Adult students with intellectual disability	10	10	20
TOTAL	22	23	45

### 4.7.6 Data Analysis

Each completed questionnaire was given a number for identification purposes and to ensure confidentiality. This comprised the prefix VI (for students with vision impairment) and ID (for students for intellectual disability), followed by a number from 1 to 25 according to the chronological order of questionnaire collection (VI-1, VI-2, ID-1, ID-2 etc). The entire analytical process for self-concept was according to the Tennessee Self-Concept Manual, for test anxiety was according to the Spielberger Test Anxiety Inventory and attested by the supervisory panel that moderate this research. In addition, the Welch independent t-tests were also employed to determine the significant differences (if any) across gender for students with vision impairment and those with intellectual disability in self-concepts and test anxieties. The overview of students with vision impairment for Stage 1 questionnaire responses is outlined in Table 4.2.

**Table 4.2 Overview of Students with Vision impairment for Stage 1 Responses (Questionnaire data)**

Background	Gender		Age		Stage		Type of Vision Impairment	
	Male	Female	15-18	19-25	Adolescents	Adults	Low vision	Blind
Number of Respondents	12	13	12	13	12	13	14	11

The full details of each individual student with vision impairment can be found in Appendix J.

The overview of students with intellectual disability for Stage 1 questionnaire responses is outlined in Table 4.3.

**Table 4.3 Overview of Students with Intellectual disability for Stage 1 Responses (Questionnaire data)**

Background	Gender		Age		Stage	
	Male	Female	15-18	19-25	Adoles- Cents	Adults
Number of Respondents	10	10	10	10	10	10

The full details of each individual student with intellectual disability can be found in Appendix K.

#### **4.7.7 Scoring Instructions**

The Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory were hand scored. A desk calculator was helpful. The scoring instructions for each of the questionnaires are outlined in the following subsections.

##### **4.7.7.1 Tennessee Self-Concept Scale: Second Edition**

The scoring procedure for the four validity scores namely Inconsistent Responding, Faking Good, Response Distribution and Self-Criticism and the seven self-concept scores namely the Physical, Moral, Personal, Family, Social, Academic and the Total Self-Concept scores are presented below.

To determine the Inconsistent Responding (INC) raw score, the response values for each item pair were entered in the spaces provided. Then, the absolute value of the difference in response values (i.e. the sample size of the difference, regardless of which response value is larger) was entered in the ‘Difference’ spaces provided. The INC raw

score is the sum of these differences. That number was entered in the space provided for the INC raw score on the Profile Sheet.

#### Inconsistent Responding (INC) Score

Item 1 \_\_\_\_\_ and Item 69 \_\_\_\_\_ = \_\_\_\_\_

Item 3 \_\_\_\_\_ and Item 65 \_\_\_\_\_ = \_\_\_\_\_

Item 6 \_\_\_\_\_ and Item 44 \_\_\_\_\_ = \_\_\_\_\_

Item 7 \_\_\_\_\_ and Item 20 \_\_\_\_\_ = \_\_\_\_\_

Item 9 \_\_\_\_\_ and Item 43 \_\_\_\_\_ = \_\_\_\_\_

Item 10 \_\_\_\_\_ and Item 77 \_\_\_\_\_ = \_\_\_\_\_

Item 13 \_\_\_\_\_ and Item 15 \_\_\_\_\_ = \_\_\_\_\_

Item 21 \_\_\_\_\_ and Item 58 \_\_\_\_\_ = \_\_\_\_\_

Item 29 \_\_\_\_\_ and Item 30 \_\_\_\_\_ = \_\_\_\_\_

INC Raw Score: \_\_\_\_\_

To calculate the Faking Good (FG) raw score, for each item specified below the response value was copied into the space provided. Then it was calculated as directed. The result was transferred to the space provided for the FG raw score on the Profile Sheet.

#### Faking Good (FG) Score

$$\begin{array}{cccccccc}
 ( \quad + \quad + \quad + \quad + \quad ) - ( \quad + \quad ) = \quad \\
 \text{Item 1} \quad \text{Item 3} \quad \text{Item 21} \quad \text{Item 22} \quad \text{Item 64} \quad \text{Item 28} \quad \text{Item 41} \quad \text{FG Raw Score}
 \end{array}$$

To determine the Response Distribution (RD) raw score, the number of 1s and 5s were counted on the Scoring Worksheet for all items. This number was entered in the space provided for the RD raw score on the Profile Sheet.

To calculate the remaining raw scores, the Scoring Worksheet was referred. Each item's response value was copied into the boxes in the same row. The numbers in each column was added and the subtotals in the spaces provided at the bottom of each page were recorded. The column subtotals from the first page of the Worksheet was transferred to the designated spaces at the bottom of the second page. The two subtotals for each column were added to obtain the raw score for that scale. The raw scores to the spaces provided at the bottom of the Profile Sheet were transferred. The spaces provided at the bottom of the second page of the Scoring Worksheet were used to calculate the Total (TOT) raw score. The TOT raw score is the sum of the Physical, Moral, Personal, Family, Social and Academic/Work raw scores.

The participant's TSCS: 2 T-scores were obtained by plotting all the raw scores recorded on the Profile Sheet. T-scores are standard scores with a mean of 50, and a standard deviation of 10. Thus a T-score below 40 on any scale falls at least one standard deviation below the mean, and a T-score above 60 falls at least one standard deviation above the mean.

To obtain T-scores for the TSCS: 2 scales, a mark was placed and located over the raw score for each scale in the appropriate column on the Profile Sheet. The T-score that

correspond to the obtained raw score value for each scale can be found along the left and right margins of the Profile Sheet, in the same row where the raw score appeared. The T-score for each scale was entered in the spaces provided at the bottom of the Profile Sheet. A copy of the TSCS: 2 Scoring Worksheet and TSCS: 2 Profile Sheet are attached in Appendices L and M, respectively.

#### **4.7.7.2 The Test Anxiety Inventory**

Students use a four-point scale to report how frequently they experience specific symptoms of anxiety in test situations. The four choices are: (1) almost never, (2) sometimes, (3) often, and (4) almost always. The scoring weights for items 2 through 20 are 1 through 4. The option 'almost never' indicates low test anxiety and is provided with a score '1'. The option 'almost always' shows high test anxiety and is provided with a score '4'. However, for item 1, 'I feel confident and relaxed while taking tests,' 'almost never' indicates high anxiety and 'almost always' indicates low anxiety. Therefore, the scoring weights are reversed for this item; the responses marked 1, 2, 3, and 4 on the test form are provided with scores 4, 3, 2, and 1. All twenty items are used to determine the total test anxiety inventory (TAI) score. Since each response is weighted from 1 to 4, the minimum TAI total score is 20 and the maximum is 80. The subscales which measure the two major components of test anxiety are Worry (TAI/W) and Emotionality (TAI/E). Each subscale consists of eight items, and therefore weighted scores range from 8 to 32. The items on the TAI/W subscale are: 3, 4, 5, 6, 7, 14, 17 and 20. The items on the TAI/E subscale are: 2, 8, 9, 10, 11, 15, 16 and 18. Conversion from raw scores to T-scores for two of the subscales-worry and emotionality and the total test anxiety (Appendix N) have been provided in the Test



Anxiety Inventory on the basis of four distinct sample references namely college undergraduates, college freshmen, community college and high school (Spielberger et al., 1980). The conversion tables for high school and community college were selected for this study. The college undergraduates and college freshmen reference scores were discarded because the samples used in this study did not fall under these categories. The adolescent and adult students who participated in this study were most closely related with the high school and community college cohorts respectively. All adolescent students who participated in this study belonged to high school and all adult students who participated in this study were attending Technical and Further Education (TAFE) institutes closely matched to adult or community colleges.

#### **4.8 Stage 2 Interviews**

As previously stated, Stage 1 was the backgrounding phase used to gain information on the basic dimensions of the topic being investigated and to help determine the self-concept and test anxiety scores. Stage 2 interviews were conducted to provide insights into the questionnaire responses, and to delve deeper into the reasons for the low and/ or high self-concept and test anxiety experienced by the students. This is in line with Gillham's thinking who states that "any research which aims to achieve an understanding of people in a real world context is going to need some interview material, if only to provide illustration, some insight into what it is like to be a person in that setting" (Gillham, 2000, p. 12).

The interviews were also designed to gather data for the third main area of investigation-the nature and extent to which the school support services provided for the two disability groups being investigated had an influence on the problem solving skills, family, social and academic lives and test anxiety of these students. Since no earlier

research existed on this topic, the interview questions were developed by the researcher, with the idea of gathering as much data as possible about the perceptions of the three groups of interviewees, students, parents and teachers concerning the support services provided.

#### **4.8.1 Interview Design**

The interview questions were developed to find answers to the overarching last four research questions stated in Chapter 1. The questions on the interview protocol were developed that centred on the broad themes namely ‘Physical Self-Concept’, ‘Moral Self-Concept’, ‘Personal Self-Concept’, ‘Family Self-Concept’, ‘Social Self-Concept’, ‘Academic/Work Self-Concept’, ‘Test Anxiety’, ‘Support Services and Students’ Problem Solving Skills, Family, Social and Academic Lives’ and ‘Support Services and Students’ Test Anxiety’. The first seven themes have been derived from the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory in the analysis of the questionnaire data and the remaining two themes have been derived from the last two research questions stated in Chapter 1. The interview questions for the three groups of participants (Appendix O) were to ensure that the problem under investigation was thoroughly examined and the themes explored. The interviews with the majority of the students and some of the teachers were face to face and semi-structured. Interviews were audio-taped, and notes taken to enable the researcher to draw inferences about the present support services provided in schools for students with vision impairment and those with intellectual disability. In order to be consistent, an ‘interview protocol’ was considered useful and designed as a guide that contains instructions for the process of interviews to be taken place, questions to be asked and space created to take notes of the responses (Creswell, 2008).

All parents, five of the teachers and three adult students with vision impairment were sent interview questions to their e-mail or mailing address (they preferred this way) which they answered and returned to the researcher either through e-mail or in the self-addressed envelope provided in the pack. Electronic e-mail or mail interviews are also useful in collecting qualitative data quickly from a geographically dispersed group of people (Creswell, 2008).

For the qualitative elements of this research, the researcher chose to perform face-to-face (Denzin & Lincoln, 1998; Gillham, 2000) and semi-structured (Kvale, 1996) interviews with the students (below 18), most of the adult students and some of the teachers. The primary reason for choosing a face-to-face approach was that questions relating to self-concept could be sensitive in nature and trust therefore played an important role (Gillham, 2000) which could not have been established in a non face-to-face interview. In the same way, there were a number of reasons for choosing a semi-structured approach. The semi-structured interview method allowed participants to answer on their own terms more than a fully structured interview would have permitted. They were encouraged to elaborate on questions in order to provide more comprehensive descriptions on the self-concept, test anxiety and support services provided in schools.

#### **4.8.2 Participant Recruitment**

Stage 1 students were invited to participate in an interview. When the students with vision impairment and those with intellectual disability (above 18 years) and parents returned the Consent Forms in Stage 1, students (above 18 years) indicated for themselves and parents indicated on behalf of their children and for themselves whether

they wanted to participate in an interview at a later date. Some declined for personal reasons. Teachers from those schools and institutes where students participated in Stage 1 were given the Information Sheet and Consent Forms personally by the researcher and the purpose of the study was explained to them. The researcher personally collected the Consent Forms from teachers where consent was given freely. Only those teachers were selected for this study who had students with vision impairment or intellectual disability in their classes. The times were arranged to interview teachers and students within the business hours of the school or institute in its premises. The time and venue for conducting the interviews with some adult students with vision impairment were often fairly flexible depending on the convenience and accessibility to the venue for both the researcher and the adult students. A warm and close rapport was established between the research participants and the researcher during the interview process. Parents who returned signed consent forms were contacted by telephone, briefed about the study and interview questions were sent to their mailing address. All packages sent out to parents in their mailing address contained paid self-addressed envelopes inside which parents returned their interview responses to the researcher. Only five of the teachers and three of the adult students with vision impairment refused to participate in a face-to-face interview; however, they opted for the interview questions to be sent to their e-mail or mailing address which they returned to the researcher after completion through the same medium.

Out of the twenty five students with vision impairment in Stage 1, fourteen students participated in the interview. Similarly, out of the twenty students with intellectual disability in Stage 1, nine students volunteered to be interviewed. Eight teachers and ten

parents agreed to be interviewed. Table 4.4 presents the range and number of participants who agreed to be interviewed.

**Table 4.4 The range and numbers of participants who agreed to be interviewed**

Teachers	Parents	Adolescent + Adult students with vision impairment	Adolescent + Adult students with intellectual disability	TOTAL
8	10	14	9	41

### **4.8.3 Developing Rapport**

The majority of the student and some of the teacher interviews were conducted on a one-on-one basis in the school or institute during working hours. Interviews with some adult students with vision impairment were also conducted on a one-on-one basis at any time and location convenient to both the researcher and the students. A casual and relaxed atmosphere was deliberately encouraged and interviews took a primarily conversational tone (Kvale, 1996). The researcher was mindful of signs of impatience, annoyance and boredom, but such gestures never surfaced. The level of interest by both parties proved to be valuable and aided in the subsequent fluidity of the transcription process. In that sense, the interview was a process of constructing a shared narrative to which the researcher, students and teachers contributed. All parents, five of the teachers and three of the adult students with vision impairment were sent the interview questions either to their e-mail or mailing address; however prior to this rapport was also established with them through telephonic conversations.

#### **4.8.4 Voice Recordings**

To avoid the distractions and background noise, interviews with students with vision impairment and those with intellectual disability and teachers were conducted in private exclusive rooms within the schools/ institute. Interviews with the majority of the adult students with vision impairment were held in a convenient place accessible by both the researcher and the students; usually the meeting room at the School of Education, University of Adelaide was used for this purpose. Interviews were recorded (with participants permission) with a digital recorder and batteries were changed every couple of interviews, not only to ensure the voice data were recorded, but to make certain that time was not wasted and rapport was maintained. The digital recorder was later connected to the personal computer and laptop of the researcher and copies were saved in electronic Windows Media Player (.mp3) format.

#### **4.8.5 Interview Narratives**

Interviews generated a substantial amount of data as the participants talked about the self-concept, test anxiety and support services provided in schools. The duration of each interview was typically 45 minutes to an hour long and yielded between 2,000-8,000 words of transcript each. Personally transcribing the voice data provided the ideal opportunity to commence the process of analysis, as the files needed to be frequently replayed in the transcription process.

Transcripts differ in their precision (Velliaris, 2010). It is often difficult to get down on paper exactly what was said. There is also the issue of whether (or how) to include grammatical errors, digressions, abrupt changes of focus, exclamations, and other

indications of mood, such as laughter and tears. A considered judgement may conclude that for most projects, transcripts do not need to be this perfect (Rubin & Rubin, 2005).

The more the researcher listened to the tapes and read the personal comments, the more she became familiar with each text and began to construct categories and recognize common patterns. The hermeneutic back-and-forth checking was constant within and between interviews. The first draft transcriptions represented an attempt to faithfully and reliably transcribe every word in the order it was spoken. A copy of the transcribed versions of the interviews was sent to the relevant interviewees (teachers and students, except for those who were blind) at the earliest possible convenience to ensure data compatibility and dependability, a technique suggested by Poland (1995). This measure was undertaken to reduce the potential for loss and distortion that can occur when transcribing (Cohen et al., 2000) and importantly, to reaffirm that the texts were suitable and acceptable for continued inclusion in this research. The opportunity for participants in this study to review and amend transcribed comments prior to its completion, further secured the validity of the interview responses. Any changes made during this process (and these were only few), resulted in the second and final version of the transcripts.

#### **4.8.6 Interview Data Analysis**

Each interviewee was given a number for identification purposes. Among the students with vision impairment and those with intellectual disability that completed the Stage 1 questionnaires, some of them chose to participate in Stage 2 interviews. These students with vision impairment and those with intellectual disability had the same code (VI-1, VI-2, ID-1, ID-2) in Stage 2 as they were coded in Stage 1. Teachers and parents that participated in Stage 2 were denoted as T (for teachers) and P (for parents) followed by

a letter from a to z (T-a, P-a). Teachers of students with vision impairment are coded T-a to T-d and teachers of students with intellectual disability are coded T-e to T-h. Parents of students with vision impairment are coded P-a to P-e and parents of students with intellectual disability are coded P-f to P-j. For greater ease and clarity when interpreting the data, numerals were used for students with vision impairment and for students with intellectual disability and alphabetic letters were used for teachers and parents. The interview analysis followed the themes in the questions raised in the interviews.

Data were thematically united and the researcher adopted an iterative approach to ascertain relationships among the responses; similarities and differences in the form of excerpts and expressions. Rather than looking for meaning(s) in discrete words, the researcher concentrated on pools of information and in this way, issues of credibility were addressed by making the analysis as contextual as possible. According to Denzin and Lincoln (1998), in qualitative research there are two types of interpreters: people who have actually experienced what has been described, and those who are often ethnographers or field-workers, so-called well-informed experts. In this study, the students with vision impairment and those with intellectual disability, their parents and teachers described these students' experiences in self-concepts and test anxiety and the influence of the support services on them. Although the researcher has no personal experience of being vision impaired or intellectually disabled, she has background knowledge and experience in working with students with special educational needs and disabilities which has enabled her to interpret the data in a systematic social scientific way. The entire analytical process was a personal endeavour validated by the research project supervisory panel. The full details of each individual student with vision



impairment and those with intellectual disability, teachers and parents in Stage 2 interviews can be found in the Appendices P, Q, R and S, respectively.

## **4.9 Ethical Considerations**

The appropriate documents for the University of Adelaide Ethics Committee's approval, and also the Department for Education and Child Development (DECD) (previously known as Department of Education and Children's Services [DECS]) ethics approval for this project had been obtained (Appendices T and U, respectively). The researcher also attended the Mandatory Notifications Training workshop and obtained police clearance as the study involved vulnerable students below 18 years of age. The Mandatory Notifications Training and police clearance certificates are attached in Appendices V and W, respectively. Participation in the study was strictly on a voluntary basis. Participants were informed that they could discontinue involvement at any time during the study.

Confidentiality was a high priority at all times, and personal information regarding the nature of the vision impairment and intellectual disability, the participants' perceptions about the different dimensions of students' self-concept and test anxiety and the participants' views and opinions regarding the support services provided in schools were recorded and stored safely. No identifying information appears in the thesis. Subsequent reporting of results, discussion of the findings, or journal articles on the topic will respect confidentiality. All students', parents' and teachers' names were removed from the transcripts and the thesis.

Participants were informed of their right to refuse to answer questions that made them feel uncomfortable. Participants were also informed that the interview would be

discontinued if participants showed evidence of emotional distress and only continued if the interviewer believed that to do so would not lead to further discomfort.

Information on the digital recorder was transcribed by the researcher. Questionnaires and transcripts were coded and kept in a locked cupboard and identifying data including names of participants and names of schools/ organisations removed to ensure that participants could not be traced. All copies of questionnaires are safely stored in a locked cupboard at the University of Adelaide and digital recordings and transcripts are retained by the researcher in her personal laptop and USB.

## **4.10 Chapter Summary**

Chapter Four delineated the research methods adopted for the two stages of this study. The research questions acted as starting points to design an appropriate methodology, which in turn influenced the selection of strategies suitable for data collection and generation. While it may not be possible to replicate this study exactly, as circumstances, settings and individuals are constantly changing, the methods described in detail are sufficient to allow a repetition of the data collection and analysis procedures.

In the upcoming three chapters, the results of this study are presented. Chapter 5 deals with Stage 1 analysis of survey questionnaire data and Chapters 6 and 7 deals with Stage 2 analysis of interview responses.

# **CHAPTER 5: ANALYSIS OF STAGE 1 DATA: TENNESSEE SELF-CONCEPT AND SPIELBERGER TEST ANXIETY QUESTIONNAIRES**

## **5.1 Introduction**

The aim in administering questionnaires, namely the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory, to students in each of the two disability areas: vision impairment and intellectual disability was to determine the scores of self-concept and its dimensions (physical, moral, personal, family, social, academic and total self-concept) and the scores of test anxiety and its components (worry, emotionality and total test anxiety) of the individuals under investigation. The questionnaires also aimed to determine whether there were any significant differences in the scores of self-concept and its dimensions and the scores of test anxiety and its components for students with vision impairment and those with intellectual disability with respect to gender.

In Stage 1, twenty-five students with vision impairment (13 females and 12 males) and twenty students with intellectual disability (10 females and 10 males) completed the questionnaires. The entire analytic process employed in interpreting the questionnaire data on self-concept was based on the Tennessee Self-Concept Manual developed by Fitts and Warren (2003) and for test anxiety on the Spielberger Test Anxiety Inventory/Manual developed by Spielberger et al. (1980). The Welch two independent sample t-tests were employed to determine whether there were any significant differences between female and male students with vision impairment and those with

intellectual disability in self-concepts and test anxieties. The self-concept analysis followed the six dimensions used in the Tennessee Self-Concept Manual namely Physical Self-Concept, Moral Self-Concept, Personal Self-Concept, Family Self-Concept, Social Self-Concept and Academic Self-Concept and thus, Total Self-Concept. Individuals with Physical, Moral, Personal, Family, Social, Academic and Total Self-Concept scores less than or equal to 40T are regarded as low, between 41T to 59T are average (normal), greater than or equal to 60T are high and beyond 70T are considered to be very high (Fitts & Warren, 2003). In addition, four validity scores namely Inconsistent Responding (INC), Self-Criticism (SC), Faking Good (FG) and Response Distribution (RD) for all students in each of the two disability groups were explored based on the Tennessee Self-Concept Manual (Appendix X). The validity scores are designed to identify defensive, guarded, socially desirable, or other unusual or distorted response patterns (Fitts & Warren, 2003). The test anxiety analysis followed two components used in the Spielberger Test Anxiety Inventory namely Worry and Emotionality and Total Test Anxiety. The conversion from raw scores to T-scores for each of the students in the entire analysis has been according to the Tennessee Self-Concept Manual (for self-concept) and Spielberger Test Anxiety Inventory (for test anxiety).

For anonymity purposes, as stated in Chapter 4, each student was provided a numeric for identification purposes, comprising the prefix VI (for students with vision impairment), ID (for students with intellectual disability) followed by a number (VI-1, ID-1 etc). In the sections that follow, the scores of the students with vision impairment and those with intellectual disability on the six dimensions and the Total Self-Concept

from the Tennessee Self-Concept Manual and the two components and the Total Test Anxiety from the Spielberger Test Anxiety Inventory are discussed in detail.

## **5.2 Physical Self-Concept (PHY)**

The Physical Self-Concept (PHY) scale contains items such as ‘My body is healthy’ (positively scored) and ‘I am a sick person’ (negatively scored). The PHY score presents “the individual’s view of his or her body, state of health and the individual’s perception of maintaining a healthy lifestyle” (Fitts & Warren, 2003, p. 23). Table 5.1 presents the T-scores for Physical self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.1 Overview of T- scores for Physical self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
48	37	38	34
36	20	41	35
32	38	47	36
34	34	36	34
31	31	38	32
36	35	32	29
37	33	32	32
23	33	32	32
44	35	32	30
42	33	37	34
36	28		
32	25		
32			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.1 indicates that 77% of the female students with vision impairment and 100% of the male students with vision impairment obtained low PHY scores (below 40T as the criteria is outlined on page 119). The remaining 23% of the female students with vision impairment scored PHY scores in the average range (above 40T and below 50T).

Table 5.1 indicates that 80% of the female students with intellectual disability and 100% of the male students with intellectual disability obtained low PHY scores (below 40T). The remaining 20% of the female students with intellectual disability scored PHY scores in the average range (above 40T and below 50T).

### **5.3 Moral Self-Concept (MOR)**

The Moral Self-Concept (MOR) scale contains items such as ‘I think I do the right thing most of the time’ (positively scored) and ‘I shouldn’t tell so many lies’ (negatively scored). The MOR score “describes the self from a moral-ethical perspective: examining moral worth, feeling of being a ‘good’ or ‘bad’ person” (Fitts & Warren, 2003, p. 23). The moral self-concept score is related “to the sense of being able to control one’s own impulses and behaviour” (Fitts & Warren, 2003, p. 23). Table 5.2 presents the T-scores for Moral self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.2 Overview of T- scores for Moral self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
36	41	42	32
33	33	42	41
35	32	41	47
35	28	39	32
20	44	42	29
32	35	31	27
25	20	29	28
36	28	29	28
45	32	28	36
57	31	31	36
31	35		
31	36		
28			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.2 indicates that 85% of the female students with vision impairment and 83% of the male students with vision impairment obtained low MOR scores (below 40T). The remaining 15% of the female students with vision impairment and 17% of the male



students with vision impairment scored MOR scores in the average range (above 40T and below 60T).

Table 5.2 indicates that 60% of the female students with intellectual disability and 80% of the male students with intellectual disability obtained low MOR scores (below 40T). The remaining 40% of the female students with intellectual disability and 20% of the male students with intellectual disability scored MOR scores in the average range (above 40T and below 50T).

#### **5.4 Personal Self-Concept (PER)**

Items on the Personal Self-Concept (PER) scale include ‘I’m happy with who I am’ (positively scored) and ‘I’m not important at all’ (negatively scored). The PER score reflects “the individual’s sense of personal worth, feeling of adequacy as a person and self evaluation of the personality apart from the body or relationships to others” (Fitts & Warren, 2003, p. 23). The PER is a good reflection of overall personality integration, and particularly well adjusted individuals will obtain a high score on this dimension (Fitts & Warren, 2003). Table 5.3 presents the T-scores for Personal self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.3 Overview of T- scores for Personal self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
30	26	30	43
29	32	39	34
32	38	41	37
34	33	38	29
30	32	43	29
26	39	29	29
30	27	28	29
27	29	29	30
40	30	29	29
53	30	28	32
27	34		
31	32		
32			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.3 indicates that 92% of the female students with vision impairment and 100% of the male students with vision impairment obtained low PER scores (less than or equal to 40T). The remaining 8% of the female students with vision impairment scored PER scores in the average range (above 40T and below 55T).

Table 5.3 indicates that 80% of the female students with intellectual disability and 90% of the male students with intellectual disability obtained low PER scores (less than or equal to 40T). The remaining 20% of the female students with intellectual disability and 10% of the male students with intellectual disability scored PER scores in the average range (above 40T and below 45T).

## **5.5 Family Self-Concept (FAM)**

The Family Self-Concept (FAM) scale includes such items as ‘My family will always help me’ (positively scored) and ‘My family doesn’t trust me’ (negatively scored). The FAM score reflects “the individual’s feelings of adequacy, worth and value as a family member. It refers to the individual’s perception of self in relation to his/her immediate circle of associates” (Fitts & Warren, 2003, p. 23). Table 5.4 presents the T-scores for Family self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.4 Overview of T- scores for Family self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
36	45	46	31
42	43	50	46
42	31	49	45
40	35	49	35
29	46	50	32
31	42	34	38
30	31	37	31
40	32	35	36
50	38	38	40
53	31	35	45
38	45		
35	42		
37			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.4 indicates that 69% of the female students with vision impairment and 50% of the male students with vision impairment obtained low FAM scores (less than or equal to 40T). The remaining 31% of the female students with vision impairment and 50% of

the male students with vision impairment scored FAM scores in the average range (above 40T and below 55T and 50T, respectively).

Table 5.4 indicates that 50% of the female students with intellectual disability and 70% of the male students with intellectual disability obtained low FAM scores (less than or equal to 40T). The remaining 50% of the female students with intellectual disability and 30% of the male students with intellectual disability scored FAM scores in the average range (above 40T and below 50T).

## **5.6 Social Self-Concept (SOC)**

The Social Self-Concept (SOC) scale includes such items as ‘I get along well with other people’ (positively scored) and ‘I find it hard to talk with people I don’t know’ (negatively scored). The SOC dimension reflects in a more general way “the individual’s sense of adequacy and worth in social interaction with other people” (Fitts & Warren, 2003, p. 24). Like the FAM score, the SOC score is a measure of how the self is perceived in relation to others. Table 5.5 presents the T-scores for Social self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.5 Overview of T- scores for Social self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
49	40	41	30
41	35	47	38
36	30	46	41
33	33	41	31
29	46	44	30
30	41	32	32
33	29	35	32
40	35	38	33
44	37	35	35
60	33	32	36
33	36		
37	40		
36			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.5 indicates that 69% of the female students with vision impairment and 83% of the male students with vision impairment obtained low SOC scores (less than or equal to 40T). The remaining 31% of the female students with vision impairment and 17% of

the male students with vision impairment scored SOC scores in the average range (above 40T and below 60T and 50T, respectively).

Table 5.5 indicates that 50% of the female students with intellectual disability and 90% of the male students with intellectual disability obtained low SOC scores (less than or equal to 40T). The remaining 50% of the female students with intellectual disability and 10% of the male students with intellectual disability scored SOC scores in the average range (above 40T and below 50T and 45T, respectively).

## **5.7 Academic/Work Self-Concept (ACA)**

The Academic/Work Self-Concept (ACA) scale includes such items as ‘Other people think I am smart’ (positively scored) and ‘I do not know how to work well’ (negatively scored). The ACA score “is a measure of how people perceive themselves in school and work settings, and of how they believe they are seen by others in those settings” (Fitts & Warren, 2003, p. 24). It is strongly related to actual academic performance (Fitts & Warren, 2003). Table 5.6 presents the T-scores for Academic self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.6 Overview of T- scores for Academic self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
41	38	41	30
33	38	51	43
42	32	48	37
42	34	47	41
26	48	48	34
33	41	28	35
34	35	30	37
42	37	32	34
42	39	34	35
49	37	28	34
34	35		
35	41		
41			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.6 indicates that 46% of the female students with vision impairment and 75% of the male students with vision impairment obtained low ACA scores (less than or equal to 40T). The remaining 54% of the female students with vision impairment and 25% of



the male students with vision impairment scored ACA scores in the average range (above 40T and below 50T).

Table 5.6 indicates that 50% of the female students with intellectual disability and 80% of the male students with intellectual disability obtained low ACA scores (less than or equal to 40T). The remaining 50% of the female students with intellectual disability and 20% of the male students with intellectual disability scored ACA scores in the average range (above 40T and below 55T and 45T, respectively).

## **5.8 Total Self-Concept (TOT)**

The Total Self-Concept (TOT) score is the single most important score on the TSCS: 2 (Fitts & Warren, 2003). It reflects the individual's overall self concept and associated levels of self-esteem. It gives an indication of whether "an individual tends to hold a generally positive and consistent or negative and variable self-view" (Fitts & Warren, 2003, p. 21). Table 5.7 presents the T-scores for Total self-concept for the female and male students with vision impairment and those with intellectual disability.

**Table 5.7 Overview of T- scores for Total self-concept**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
37	35	37	28
31	29	44	37
33	29	44	38
33	28	40	29
20	39	43	24
24	36	25	26
26	20	27	25
30	27	28	28
43	31	28	29
53	28	27	33
28	31		
29	31		
30			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.7 indicates that 85% of the female students with vision impairment and 100% of the male students with vision impairment obtained low TOT scores (less than or equal to 40T). The remaining 15% of the female students with vision impairment scored TOT scores in the average range (above 40T and below 55T).

Table 5.7 indicates that 70% of the female students with intellectual disability and 100% of the male students with intellectual disability obtained low TOT scores (less than or equal to 40T). The remaining 30% of the female students with intellectual disability scored TOT scores in the average range (above 40T and below 45T).

## **5.9 Test Anxiety**

Test Anxiety includes the total test anxiety, worry and emotionality scores of the students with vision impairment and those with intellectual disability. The Total Test Anxiety score demonstrates the magnitude of students' fear of examinations (Spielberger et al., 1980). It indicates anxiety, worry and stress experienced by students before and during any testing situation, before submitting an assignment and/ or performing any new task in class (Spielberger et al., 1980). Based on the Test Anxiety Inventory developed by Spielberger et al. (1980), the two subscales- worry and emotionality and total test anxiety raw scores have been converted into T-scores for the analysis and interpretation. Conversion from raw scores to T-scores for two of the subscales-worry and emotionality and the total test anxiety have been provided in the Test Anxiety Inventory on the basis of four distinct sample references namely college undergraduates, college freshmen, community college and high school (Spielberger et al., 1980). The conversion tables for high school and community college were selected for this study. The college undergraduates and college freshmen reference scores were discarded because the samples used in this study did not fall under these categories. The adolescent and adult students who participated in this study were most closely related with the high school and community college cohorts respectively in the Test Anxiety Inventory. All adolescent students who participated in this study belonged to high

school and all adult students who participated in this study were attending Technical and Further Education (TAFE) institutes which closely matched adult or community colleges. Therefore, the analysis of total test anxiety, worry and emotionality had to be undertaken separately for the adolescent and adult students in each of the two disability groups based on the Test Anxiety Inventory, quite dissimilar in comparison to the analysis used for self-concept across the dimensions for the students (which included adolescents and adults together as ‘students’ and not separately) in each of the two disability groups. Finally, the analysis of total test anxiety, worry and emotionality was deduced on the total student cohort- (as a whole) in each of the two disability groups to maintain consistency with the analysis used for self-concept across the dimensions.

Female adolescent students with total test anxiety scores between 32T and 47T are low on test anxiety, between 48T and 61T are in the moderate range and between 62T and 76T are high on test anxiety (Spielberger et al., 1980). Male adolescent students with total test anxiety scores between 34T and 50T are low on test anxiety, between 51T and 66T are in the moderate range and between 67T and 81T are high on test anxiety (Spielberger et al., 1980).

Female adult students with total test anxiety scores between 33T and 48T are low on test anxiety, between 49T and 64T are in the moderate range and between 65T and 79T are high on test anxiety (Spielberger et al., 1980). Male adult students with total test anxiety scores between 35T and 52T are low on test anxiety, between 53T and 69T are in the moderate range and between 70T and 86T are high on test anxiety (Spielberger et al., 1980). Table 5.8 presents the T-scores for Total Test Anxiety for the female and male adolescent students with vision impairment and those with intellectual disability.

**Table 5.8 Overview of Adolescents' T- scores for Total Test Anxiety**

Female V.I. (N=6)	Male V.I. (N=6)	Female I.D. (N=5)	Male I.D. (N=5)
58	66	76	56
61	62	53	66
73	46	76	69
63	37	60	69
46	72	73	74
67	72		

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.8 indicates that 50% of the adolescent female students with vision impairment and 33% of the adolescent male students with vision impairment obtained high total test anxiety scores. Out of the remaining 50% of the adolescent female students with vision impairment, 33% scored total test anxiety scores in the moderate range and another 17% scored total test anxiety scores in the lower range. Out of the remaining 67% of the adolescent male students with vision impairment, 33% obtained total test anxiety scores in the moderate range and another 33% obtained total test anxiety scores in the lower range.

Table 5.8 indicates that 60% of the adolescent female students with intellectual disability and 60% of the adolescent male students with intellectual disability obtained high total test anxiety scores. The remaining 40% of the adolescent female students with intellectual disability and 40% of the adolescent male students with intellectual

disability obtained total test anxiety scores in the moderate range. Table 5.9 presents the T-scores for Total Test Anxiety for the female and male adult students with vision impairment and those with intellectual disability.

**Table 5.9 Overview of Adults' T- scores for Total Test Anxiety**

Female V.I. (N=7)	Male V.I. (N=6)	Female I.D. (N=5)	Male I.D. (N=5)
67	75	73	60
77	77	77	69
79	76	70	69
79	73	79	62
61	77	79	77
72	75		
77			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.9 indicates that 86% of the adult female students with vision impairment and 100% of the adult male students with vision impairment obtained high total test anxiety scores. The remaining 14% of the adult female students with vision impairment scored total test anxiety scores in the moderate range.

Table 5.9 indicates that 100% of the adult female students with intellectual disability and 20% of the adult male students with intellectual disability obtained high total test

anxiety scores. The remaining 80% of the adult male students with intellectual disability obtained total test anxiety scores in the moderate range.

Tables 5.8 and 5.9 indicates that in the total test anxiety, 8% of the female students with vision impairment and 16.7% of the male students with vision impairment were low, 23% of the female students with vision impairment and 16.7% of the male students with vision impairment were in the moderate range and 69% of the female students with vision impairment and 66.7% of the male students with vision impairment had high scores.

Tables 5.8 and 5.9 indicates that in the total test anxiety, 20% of the female students with intellectual disability and 60% of the male students with intellectual disability were in the moderate range and 80% of the female students with intellectual disability and 40% of the male students with intellectual disability had high scores.

## **5.10 Worry**

Liebert and Morris (1967) and Spielberger et al. (1980) identified worry and emotionality as the two major components/ subscales of test anxiety. Worry is defined as the psychological or cognitive concerns and distress about the consequences of failure in a testing situation (Spielberger et al., 1980).

Female adolescent students with worry scores between 34T and 50T are low on worry subscale, between 52T and 59T are moderate and between 60T and 76T are high on worry subscale (Spielberger et al., 1980). Male adolescent students with worry scores between 36T and 53T are low on worry subscale, between 55T and 62T are moderate and between 64T and 81T are high on worry subscale (Spielberger et al., 1980).

Female adult students with worry scores between 36T and 53T are low on worry subscale, between 54T and 61T are moderate and between 63T and 79T are high on worry subscale (Spielberger et al., 1980). Male adult students with worry scores between 38T and 55T are low on worry subscale, between 57T and 64T are moderate and between 66T and 83T are high on worry subscale (Spielberger et al., 1980). Table 5.10 presents the T-scores for Worry for the female and male adolescent students with vision impairment and those with intellectual disability.

**Table 5.10 Overview of Adolescents' T- scores for Worry Subscale**

Female V.I. (N=6)	Male V.I. (N=6)	Female I.D. (N=5)	Male I.D. (N=5)
55	66	76	66
62	64	57	66
71	43	76	66
62	41	62	64
50	70	74	73
64	71		

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.10 indicates that 67% of the adolescent female students with vision impairment and 67% of the adolescent male students with vision impairment obtained high worry scores. Out of the remaining 33% of the adolescent female students with vision impairment, 16.5% scored worry scores in the moderate range and another 16.5%



scored worry scores in the lower range. The remaining 33% of the adolescent male students with vision impairment, obtained worry scores in the lower range.

Table 5.10 indicates that 80% of the adolescent female students with intellectual disability and 100% of the adolescent male students with intellectual disability obtained high worry scores. The remaining 20% of the adolescent female students with intellectual disability obtained worry scores in the moderate range. Table 5.11 presents the T-scores for Worry for the female and male adult students with vision impairment and those with intellectual disability.

**Table 5.11 Overview of Adults’ T- scores for Worry Subscale**

Female V.I. (N=7)	Male V.I. (N=6)	Female I.D. (N=5)	Male I.D. (N=5)
65	70	72	55
77	75	77	68
79	72	70	68
79	70	79	57
59	77	79	77
72	73		
79			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.11 indicates that 86% of the adult female students with vision impairment and 100% of the adult male students with vision impairment obtained high worry scores.

The remaining 14% of the adult female students with vision impairment scored worry scores in the moderate range.

Table 5.11 indicates that 100% of the adult female students with intellectual disability and 60% of the adult male students with intellectual disability obtained high worry scores. Out of the remaining 40% of the adult male students with intellectual disability, 20% obtained worry scores in the moderate range and another 20% obtained worry scores in the lower range.

Tables 5.10 and 5.11 indicates that in the worry, 7.7% of the female students with vision impairment and 17% of the male students with vision impairment had low, 15.4% of the female students with vision impairment had moderate and 77% of the female students with vision impairment and 83% of the male students with vision impairment had high scores.

Tables 5.10 and 5.11 indicates that in the worry, 10% of the male students with intellectual disability had low, 10% of the female students with intellectual disability and 10% of the male students with intellectual disability had moderate and 90% of the female students with intellectual disability and 80% of the male students with intellectual disability had high scores.

## **5.11 Emotionality**

Emotionality is the other component or subscale of test anxiety (Liebert & Morris, 1967). According to Spielberger et al. (1980), emotionality is the affective dimension; it refers to the physical and bodily reactions experienced by students in a testing situation.

Examples of such a reaction can be nervousness, fear, physical discomfort, sweating, constantly looking at the clock, pencil-taping and so on (Spielberger et al., 1980).

Female adolescent students with emotionality scores between 31T and 47T are low on emotionality subscale, between 48T and 55T are moderate and between 57T and 72T are high on emotionality subscale (Spielberger et al., 1980). Male adolescent students with emotionality scores between 34T and 51T are low on emotionality subscale, between 53T and 60T are moderate and between 62T and 78T are high on emotionality subscale (Spielberger et al., 1980).

Female adult students with emotionality scores between 32T and 47T are low on emotionality subscale, between 49T and 56T are moderate and between 58T and 73T are high on emotionality subscale (Spielberger et al., 1980). Male adult students with emotionality scores between 33T and 51T are low on emotionality subscale, between 53T and 61T are moderate and between 63T and 82T are high on emotionality subscale (Spielberger et al., 1980). Table 5.12 presents the T-scores for Emotionality for the female and male adolescent students with vision impairment and those with intellectual disability.

**Table 5.12 Overview of Adolescents' T- scores for Emotionality Subscale**

Female V.I. (N=6)	Male V.I. (N=6)	Female I.D. (N=5)	Male I.D. (N=5)
59	64	72	51
59	62	52	64
71	49	72	64
60	34	59	71
44	74	71	73
67	71		

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.12 indicates that 83% of the adolescent female students with vision impairment and 67% of the adolescent male students with vision impairment obtained high emotionality scores. The remaining 17% of the adolescent female students with vision impairment scored emotionality scores in the lower range. The remaining 33% of the adolescent male students with vision impairment, obtained emotionality scores in the lower range.

Table 5.12 indicates that 80% of the adolescent female students with intellectual disability and 80% of the adolescent male students with intellectual disability obtained high emotionality scores. The remaining 20% of the adolescent female students with intellectual disability obtained emotionality scores in the moderate range whereas the remaining 20% of the adolescent male students with intellectual disability obtained

emotionality scores in the lower range. Table 5.13 presents the T-scores for Emotionality for the female and male adult students with vision impairment and those with intellectual disability.

**Table 5.13 Overview of Adults' T- scores for Emotionality Subscale**

Female V.I. (N=7)	Male V.I. (N=6)	Female I.D. (N=5)	Male I.D. (N=5)
66	72	71	61
73	76	71	66
73	72	66	66
73	74	73	61
59	70	73	74
68	74		
71			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

Table 5.13 indicates that 100% of the adult female students with vision impairment and 100% of the adult male students with vision impairment obtained high emotionality scores.

Table 5.13 indicates that 100% of the adult female students with intellectual disability and 60% of the adult male students with intellectual disability obtained high emotionality scores. The remaining 40% of the adult male students with intellectual disability obtained emotionality scores in the moderate range.

Tables 5.12 and 5.13 indicates that in the emotionality, 8% of the female students with vision impairment and 16.7% of the male students with vision impairment had low and 92% of the female students with vision impairment and 83.3% of the male students with vision impairment had high scores.

Tables 5.12 and 5.13 indicates that in the emotionality, 10% of the male students with intellectual disability had low, 10% of the female students with intellectual disability and 20% of the male students with intellectual disability had moderate and 90% of the female students with intellectual disability and 70% of the male students with intellectual disability had high scores.

## **5.12 Welch Independent t-Tests Analysis**

In the sections that follow, the Welch two independent sample t-tests for the students with vision impairment and those with intellectual disability on the six dimensions and Total Self-Concept from the Tennessee Self-Concept Scale: Second Edition Manual and the two components and Total Test Anxiety from the Test Anxiety Inventory are conducted. Since it is an exploratory data analysis, only t-test and not any higher statistical analysis was conducted.

**Table 5.14 Overview of Mean (M), Standard Deviation (SD), t-value and p-value of self-concept across its six dimensions and Total self-Concept for students with vision impairment with respect to gender**

Self-Concept Dimensions	Mean (M) and Standard Deviation (SD)		t-value	p-value
	Female (N=13)	Male (N=12)		
Physical Self-Concept	M = 41.30 SD = 5.66	M = 38.5 SD = 3.68	1.48	0.15NS
Moral Self-Concept	M = 36.69 SD = 5.01	M = 35.08 SD = 4.08	0.88	0.39NS
Personal Self-Concept	M = 35.23 SD = 5.39	M = 34.83 SD = 3.51	0.22	0.83NS
Family Self-Concept	M = 38 SD = 4.67	M = 37.75 SD = 3.28	0.16	0.88NS
Social Self-Concept	M = 39.46 SD = 5.38	M = 37.75 SD = 2.73	1.01	0.32NS
Academic Self-Concept	M = 37.08 SD = 4.13	M = 36.83 SD = 2.76	0.17	0.86NS
Total Self-Concept	M = 227.76 SD = 25.64	M = 220.75 SD = 12.06	0.89	0.39NS

NS = Not Significant

Table 5.14 indicates that there were no significant differences between female and male students with vision impairment in the Physical, Moral, Personal, Family, Social and Academic Self-Concepts and thus Total Self-Concept ( $p > 0.05$ ).

**Table 5.15 Overview of Mean (M), Standard Deviation (SD), t-value and p-value of test anxiety across its two components and Total Test Anxiety for students with vision impairment with respect to gender**

Test Anxiety Components	Mean (M) and Standard Deviation (SD)		t-value	p-value
	Female (N=13)	Male (N=12)		
Total Test Anxiety	M = 66.92 SD = 12.11	M = 59.67 SD = 15.17	1.31	0.20NS
Worry	M = 26.08 SD = 5.01	M = 23.58 SD = 5.88	1.14	0.27NS
Emotionality	M = 27.38 SD = 4.91	M = 24.5 SD = 6.39	1.26	0.22NS

NS = Not Significant

Table 5.15 indicates that there were no significant differences between female and male students with vision impairment in the Total Test Anxiety, Worry and Emotionality ( $p > 0.05$ ).



**Table 5.16 Overview of Mean (M), Standard Deviation (SD), t-value and p-value of self-concept across its six dimensions and Total Self- Concept for students with intellectual disability with respect to gender**

Self-Concept Dimensions	Mean (M) and Standard Deviation (SD)		t-value	p-value
	Female (N=10)	Male (N=10)		
Physical Self-Concept	M = 42.1 SD = 5.32	M = 38.8 SD = 3.01	1.71	0.11NS
Moral Self-Concept	M = 37.3 SD = 1.42	M = 36 SD = 2.75	1.33	0.21NS
Personal Self-Concept	M = 35.8 SD = 4.10	M = 34.6 SD = 3.37	0.71	0.48NS
Family Self-Concept	M = 41.4 SD = 3.06	M = 37.3 SD = 4.69	2.31	0.035*
Social Self-Concept	M = 39.8 SD = 2.78	M = 36.2 SD = 1.99	3.33	0.004*
Academic Self-Concept	M = 37.7 SD = 6.04	M = 35.5 SD = 3.03	1.03	0.32NS
Total Self-Concept	M = 234.1 SD = 20.58	M = 218.4 SD = 10.86	2.13	0.05NS

NS = Not Significant

\* Significant at .05 level

Table 5.16 indicates that there were no significant differences between female and male students with intellectual disability in the Physical, Moral, Personal, Academic and Total Self-Concepts ( $p > 0.05$ ). However, there were significant differences between female and male students with intellectual disability in the Family and Social Self-Concept dimensions ( $p < 0.05$ ). The female students with intellectual disability were

found to be significantly higher than the male students with intellectual disability in the Family and Social Self-Concept dimensions respectively.

**Table 5.17 Overview of Mean (M), Standard Deviation (SD), t-value and p-value of test anxiety across its two components and Total Test Anxiety for students with intellectual disability with respect to gender**

Test Anxiety Components	Mean (M) and Standard Deviation (SD)		t-value	p-value
	Female (N=13)	Male (N=12)		
Total Test Anxiety	M = 72.3 SD = 10.61	M = 59.7 SD = 8.21	2.97	0.009*
Worry	M = 29 SD = 3.92	M = 23.5 SD = 3.72	3.22	0.005*
Emotionality	M = 29.3 SD = 4.14	M = 24.2 SD = 3.55	2.96	0.009*

\* Significant at .05 level

Table 5.17 indicates that there were significant differences between female and male students with intellectual disability in the Total Test Anxiety, Worry and Emotionality ( $p < 0.05$ ). In the two components of test anxiety and Total Test Anxiety, the female students with intellectual disability were found to be significantly higher than the male students with intellectual disability.

### 5.13 Chapter Summary

The aim of this chapter was to analyse and report the self-concept and test anxiety questionnaire data for the female and male students (adolescents and adults) with vision impairment and those with intellectual disability on the basis of the Tennessee Self-

Concept Scale: Second Edition Manual and the Test Anxiety Inventory. The Welch two independent sample t-tests were performed to find out whether there were any significant differences between female and male students with vision impairment and those with intellectual disability in self-concepts and test anxieties. This chapter does not aim to compare the questionnaire data in relation to students in the two disability groups. Analysis and presentation of the questionnaire data presented here in Chapter 5 provided a basis for identifying similar themes in the Stage 2 interview narratives, which are discussed in the next chapter.

# **CHAPTER 6: ANALYSIS OF STAGE 2 INTERVIEW RESPONSES: SELF-CONCEPT AND TEST ANXIETY**

## **6.1 Introduction**

The aim in interviewing participants in Stage 2 was to provide insights into the reasons for low or high self-concept and test anxiety in the students with vision impairment and those with intellectual disability under investigation. An additional dimension added to the interviews was to investigate whether the support services provided in schools for students with vision impairment and those with intellectual disability had any influence on the problem solving skills, family, social and academic lives and test anxiety of these students under study. This chapter reports what students with vision impairment and those with intellectual disability were able to achieve in the different dimensions of self-concept. It further highlights the reasons for high or low self-concepts and test anxiety among these students. Chapter 7 presents the interview data on support services.

In Stage 2, fourteen students with vision impairment and nine students with intellectual disability, eight teachers and ten parents were interviewed, totalling 41 interviews. The analytic process involved detailed reading of the interview narratives and coding the transcripts for the purpose of identifying common and dissimilar response patterns among them. The analysis followed the themes in the questions raised in the interviews. The themes identified for the analysis of Stage 2 interview data were Physical Self-Concept, Moral Self-Concept, Personal Self-Concept, Family Self-Concept, Social Self-Concept, Academic Self-Concept, Test Anxiety, Influence of the Support Services on Students' Problem Solving Skills, Family, Social and Academic Lives and Influence of

the Support Services on Students' Test Anxiety. The first seven themes were derived from the questionnaires in the analysis of the Stage 1 data and the remaining two themes were derived from the last two research questions stated in Chapter 1. This chapter analyses the interview responses obtained only under the first seven themes. The remaining two themes are analysed and presented in Chapter 7.

Under each theme, questions similar in nature were asked of the three groups of participants-students, parents and teachers in each of the two disability groups- vision and intellectual impairments. As much as possible, selected quotations under each theme represent the spectrum of responses covered by all respondents in this study-students with vision impairment, their parents and teachers and students with intellectual disability, their parents and teachers. Some quotations are quite long, however. Rather than looking for meaning(s) in discrete words, the analysis concentrated on pools of information and overall meaning in order to remain as contextual and holistic as possible.

It must be reiterated that this research has not disclosed any information that could prejudice research participants, and for anonymity purposes, as stated in Chapter 4, each interviewee was given either a numeric or an alphabetic letter for identification purposes. This comprised the prefix VI (for students with vision impairment), ID (for students with intellectual disability) followed by a number (VI-1, ID-1 etc), T (for teachers) and P (for parents) followed by a letter from a to z (T-a, P-a etc). Teachers of students with VI are coded T-a to T-d. Teachers of students with ID are coded T-e to T-h. Parents of students with VI are coded P-a to P-e. Parents of students with ID are

coded P-f to P-j. In the sections that follow, the first seven key themes are discussed in turn, using illustrative quotations from the interviews as much as possible.

## **6.2 Physical Self-Concept**

The discussion of the Physical self-concept theme presents the individuals' views of their state of health, explores whether they were able to practice a healthy way of life and what factors (if any) prevented them from achieving a healthy existence. To ensure this, a similar or comparable question was asked to the three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The questions were as follows:

- The students:

“Do you maintain a physically healthy lifestyle? How do you achieve this? If not, why?”

- The parents:

“Does your child maintain a physically healthy lifestyle? If not, why?”

- The teachers:

“Do students with vision impairment and those with intellectual disability able to maintain a physically healthy lifestyle? If not, why?”

Table 6.1 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 6.1 Overview of major response patterns from the interviews on Physical self-concept**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Maintaining/ trying to maintain/ expressed a desire to maintain a healthy lifestyle	VI-1, VI-2, VI-5, VI-6, VI-7, VI-8, VI-10, VI-11, VI-12, VI-13, VI-14, VI-4	P-e	T-a, T-b, T-c, T-d	ID-1, ID-2, ID-3, ID-4, ID-5, ID-11, ID-12, ID-13	P-f, P- g, P-h, P-i, P-j		30
2. Disability a barrier to outdoor activities	VI-3, VI-5	P-a, P- b, P-c, P-d	T-b			T-g, T-h	9
3. Could maintain a fit routine only with help and support			T-a, T-b, T-c, T-d	ID-6	P-g, P- h, P-j		8
4. Not maintaining a healthy state of living	VI-9	P-a, P- b, P-c, P-d		ID-11		T-e, T-f, T-g, T-h	10
Total comments	15	9	9	10	8	6	57

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

The major response patterns that emerged from the interviews with students, parents and teachers on Physical self-concept are discussed below.

### 6.2.1 Students with Vision impairment

Fourteen students with vision impairment participated in the interviews. In seeking to understand the lifestyle of these students with vision impairment, they were asked

whether they maintained a physically healthy lifestyle and if so how they achieved it. Eleven of the students with vision impairment considered that they tried to maintain a healthy lifestyle by going for regular walks, engaging in exercises, games and eating a healthy diet. A few of the students were involved in community work in the form of environmental cleanup, which helped them to stay fit. Some of the interview responses that confirm this statement are as follows:

*Most of the time I try to maintain a healthy lifestyle. I play a lot of sports and I try to eat healthy. (VI-2)*

*I eat more salads and I am into athletics. (VI-12)*

*I take good sleep and reduce the intake of junk food. (VI-13)*

*I maintain a healthy diet and balanced lifestyle, consisting of a mixture of work, study, fun and social time throughout the semester. This is achieved through keeping an active and well organized schedule and study plans. (VI-8)*

However, two students expressed their concerns about not staying physically fit, in relation to their vision impairment. They preferred to stay indoors most of the time. The following quotes substantiate these students' viewpoints:

*Yes, I try to walk regularly and have some exercise equipment which I use daily. I am unable to do sporty activities due to my vision impairment. It becomes difficult for me to navigate due to my vision loss and it has left me staying more indoors. (VI-5)*

*I do not maintain a healthy lifestyle as I like being inside like playing on the computer owing primarily to my vision loss. (VI-3)*

On a positive note, one of the students expressed her desire to keep healthier in the near future. Her sentiments have been captured in the following excerpt:

*I am trying to maintain a healthy lifestyle by drinking water, walking with my dog but need to focus on outdoor activities such as sports or going to a gym. Public transport can be suitable for me to go and not depend on others to take me places in a car. (VI-4)*



Surprisingly, one of the adult students with vision impairment blatantly declared that she did not maintain a healthy way of life and was not bothered about her current existence.

*I smoke and drink and am not worried about my diet not being the best. Also, I rarely exercise. (VI-9)*

### **6.2.2 Parents of Students with Vision impairment**

Five parents were questioned about their children's lifestyle. All but one of the parents having a child with vision impairment were not happy with their child's physical health. They expressed serious concerns about their children not being involved in outdoor activities and confining themselves more to indoor and computer games. They said that their children did not go for regular walks and jogs as these activities could not be performed effortlessly by them, due to their significant vision loss. Parents felt that schools should play an active role in encouraging students to take part in outdoor and sporting activities so that they could maintain a healthier lifestyle compared to some of their peers. The quotes below focus on poor physical health and lack of exercise undertaken by students with vision impairment, from the perspective of parents:

*I feel my child should be exercising more by going to gyms, walks etc. She prefers more to stay indoors and play computer games due to her vision loss. Though I encourage her to go outdoors, I feel somewhere she is lagging behind than others due to her VI. (P-a)*

*My child does not engage in a healthy lifestyle as she is lazy, does not go out for jogs or morning walks. Her vision loss, I believe is a reason for this. (P-b)*

*My child is not having the ideally best lifestyle due to his VI. He needs more guidance and help from school. He should be encouraged more in outdoor games. I can understand that because of his VI, he prefers not to participate in outdoor games as he thinks his VI might be a cause for embarrassment in front of others. (P-d)*

Another parent believed that while her son had a healthy diet, he avoided exercise and preferred to play on the computer. She strongly believed that teachers had a role to play in facilitating children's healthy lifestyle and engagement in sporting activities. The following quote illustrates her viewpoint:

*My son eats good food and healthy diet. He needs to be forced to go for walks as he prefers more to work and play at the computer. The computer does not allow him to go out and play, maybe his vision deficiency is a cause as well. I always encourage him to play outdoors. I feel his teachers at school should be more encouraging in this matter. Teachers should try to help him to be more independent and encourage him in sporty activities. (P-c)*

However, one parent seemed to be satisfied with the way her daughter was maintaining her physical lifestyle in spite of having vision impairment as is evident from the following quote:

*My child is happy, has a good family relationship, exercises for 10 minutes a day, gets lots of sleep..... I never push her and allow her to be in charge of her own needs and activities. (P-e)*

Parents were of the view that their children with vision impairment generally did not engage in exercise and sporting activities. They blamed the disability, vision impairment. Two parents thought that schools and teachers had an important role in encouraging children to engage in sporting activities and maintain a healthy lifestyle.

### **6.2.3 Teachers of Students with Vision impairment**

Four teachers were questioned about their perceptions of the healthy lifestyle of their students with vision impairment. All expressed the view that students with vision impairment were able to maintain a healthy lifestyle, however, they argued that the school and the home needs to play an active role in cultivating positive physical skills and healthy lifestyles in these students. Teachers believed that students who are blind were faced with real challenges to stay fit, as compared to students who have low vision

and so schools have organized clubs and fitness sessions for these students to ensure that they can participate actively all year round. Two of the teachers stated:

*We have a very good Physical Education faculty who support students with V.I. We have a lunch time program that also tries to support students' fitness because the blind students have the greatest difficulty of maintaining fitness. (T-b)*

*Sometimes they are able to maintain a healthy lifestyle because at school we do encourage them to take parts in sports and clubs. However, I feel that the family needs to be equally proactive in maintaining their physical health, which in some cases is lacking. (T-d)*

This teacher's comment focussed on a second point- the importance of the family's encouragement and support. It was evident from the statements of the other teachers that this was a shared point of view as the following quotes illustrate:

*Yes, I feel students with VI are able to maintain a physically healthy lifestyle. Most of the time the influence of the home makes a big difference. (T-c)*

*I think it is their personal experience with physical activity, might be from young age. I think it can be influenced by home, what they have done at home with families and friends. It can also be influences at School when they start to go to School as well, where their interests are, what their friends are doing at that time as well as to if they go outside and play or if they stay inside and play Nintendo. I think that can influence how physically healthy, umm, they might be. (T-a)*

*Some students maintain physically healthy status because their families involve them in sports & are willing to take them along either the special gym that the Royal Society for the Blind holds or to the family physical activity or to the family swimming activity. Sometimes if the kids qualify they get into a club where they get coached. So I feel family support is quite significant. If the family is active & physically fit, that makes a huge difference on the child. (T-b)*

#### **6.2.4 Overview of Responses on Vision Impairment**

In summary, the majority of the students with vision impairment reported that they tried to maintain a healthy physical lifestyle; however sometimes they could not keep up to the standards due to their vision impairment. Parents who had a child with vision impairment expressed their concerns about their child's physical health as most often they found their children with vision impairment to be more indoors at home rather than being outdoors. Generally they believed that the school and teachers had a role to play

in helping their child to maintain a physically healthy lifestyle. All four teachers of students with vision impairment were of the opinion that schools have played an active part by organizing clubs and fitness sessions to build up on the physical well being of students with vision impairment while stressing the vital role of the family's positive influence and support. In spite of rendering such efforts, one of the teachers found that students who are blind had real challenges to maintain a healthy existence in comparison to students with low vision, who could manage to use their residual vision effectively to some extent to maintain their physical lives.

### **6.2.5 Students with Intellectual disability**

Nine students with intellectual disability were asked about their lifestyle and how they maintained a healthy approach to life. All but two of the students with intellectual disability explained that they tried to maintain a healthy lifestyle by exercising, going for regular walks and eating a good and balanced diet. Some exhibited their desire of going beyond the regular regime by engaging in swimming and other activities as one student stated:

*I maintain a healthy lifestyle. I exercise regularly, eat healthy food. I go for jogs and run. On Thursday afternoon I run my dog and would like to go for Koala sports. (ID-1)*

*I try to exercise and go for walks and I eat well. (ID-3)*

There were a range of student sentiments that supported this sense of well being in a way that they related food and diet to a healthy lifestyle as the following quotes indicate:

*Partially, I maintain a healthy lifestyle because I take a healthy diet but I do not exercise. (ID-11)*

*I try to keep fit by eating well and eating less fatty stuff. (ID-13)*

*Hmm, I try to exercise, swim, and eat good food and diet. (ID-2)*

Not all students reflected this level of confidence in their healthy lifestyle. For example, one of the students claimed that only with intervention from parents was it possible for her to maintain a healthy lifestyle. However, she emphasized that when she was left alone a feeling of dependency and negativism crept in.

*Mum helps me to maintain a healthy lifestyle by feeding me with healthy diet and going out for long walks with me. Without mom's support, I feel alone and crave to depend on my mom (ID-6)*

Therefore, in summary, it is evident that the majority of the students with intellectual disability seemed to be conscious and concerned about their physical health. To some their disability did not seem to prevent their keeping fit and maintaining a healthy lifestyle. This indicates that there is a definite desire and potential for this cohort of young people to develop a positive approach to physical fitness and healthy lifestyle; however to achieve this they require the intervention and assistance of significant others. Similarly, parents of intellectual disability predominantly reflected this positive disposition.

### **6.2.6 Parents of Students with Intellectual disability**

When parents were asked about their children's lifestyle, all five parents of students with intellectual disability confirmed that their children maintained or wanted to maintain a physically healthy lifestyle by going for walks, jogs and outdoor activities; although they reported that some of the students had to be constantly reminded or told to undertake those activities. For example, one parent reported:

*She tries to keep fit by exercising and going for regular jogs. This has been imbibed in her from childhood for her betterment and general well being. (P-j)*

Another commented:

*I literally have to be after my daughter so that she can maintain a good lifestyle. She is not independent and in most instances needs to be reminded to go for jogs and swimming. (P-g)*

Another parent expressed similar views:

*My daughter seems to be pretty much concerned about her physical health. She tries going out for regular walks though sometimes she is lazy. (P-f)*

Some parents recognized the centrality of sports in a healthy lifestyle and were concerned that their children did not always achieve this by themselves:

*My son goes out for regular walks. He has the intention to engage in some sporty activities, however, he is too lazy to execute it himself. (P-i)*

Another affirmed the role that teachers and schools played in achieving this healthy status:

*I have seen my son trying to keep up to a good schedule. With help from teachers and parents he can fairly maintain a good lifestyle. (P-h)*

Unlike the parents of the cohort with vision impaired, none of the parents of the students with intellectual disability considered that their children were not maintaining a healthy lifestyle.

### **6.2.7 Teachers of Students with Intellectual disability**

When teachers were questioned about their perceptions of their students' physical lifestyle, all four teachers were of the opinion that their students with intellectual disability were often not able to maintain a physically healthy lifestyle. They reported that students with intellectual disability did not take part in any outdoor activities in school in the form of sports, clubs and teams. Further, they indicated that students were quite reluctant to engage in morning walks, jogs or exercise sessions. Some teachers attributed the student's inability to engage in healthy activities at school mainly to their intellectual disability. They claimed that students were not conscious of the importance

of health, and to some extent were incapable of maintaining a regular healthy lifestyle for themselves. The teachers pointed out that student's required regular supervision and monitoring either by teachers or parents. Some of the teachers reflected this general sentiment as can be seen in the following excerpts:

*I think my students do not maintain a physically healthy lifestyle because most of them sat in front of the television at weekend and they do not get enough exercise and they don't play sports or join clubs and teams and that's a really big issue. I know my children spend all weekend on various sports and things they know at this age but these children don't. I know one student in the class who belongs to a team but no one else does anything. Most of them sit back at home and watch television. (T-e)*

*No, most of them do not maintain a healthy lifestyle. They often spend time playing at the computer and never engage in outdoor sports in school. (T-f)*

*I don't think so because they do not go for morning walks, in spite of me repeatedly telling them. I think it is because of their ID that they are not conscious and unable to meet the requirements of a physically fit lifestyle. (T-g)*

*I would say, partially they are able to maintain a fit lifestyle because some parents I know are conscious and feed them with good and balanced diet. However, the students with ID are not able to do their parts by going for walks, runs or engaging in sports at school. They simply prefer to sit back and do indoor activities. (T-h)*

### **6.2.8 Overview of Responses on Intellectual disability**

In summary, eight out of the nine students with intellectual disability articulated their intentions of maintaining a healthy way of life; one thought that she achieved it and another believed that only with help and intervention from significant others could she attain it. Parents of students with intellectual disability found that though their children had the urge to maintain healthy living, they had to be provided with help and assistance from teachers and parents to keep up to a healthy standard lifestyle. Teachers considered that their students with intellectual disability were incapable of maintaining a healthy daily life independently because of their disability and claimed they required systematic supervision and monitoring by parents and teachers. Therefore, it can be concluded that, in reference to the participants with intellectual disability, there were

mixed perspectives regarding the physical self-concept of students in terms of their ability to achieve a healthy lifestyle. While the majority of the students self determined their status as healthy, parents held mixed views while teachers claimed the opposite. Whether these diverse views are evident in regards to students' moral self-concept, are explored in the next section.

### **6.3 Moral Self-Concept**

The discussion of the Moral self-concept theme describes the self from an ethical and fair standpoint. It examines the moral worth, feelings of being and behaving the good and bad way. To ensure this a similar question was asked to the three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The questions were as follows:

- The students:

“Give examples (if any) of what you think is your good student behaviour and your bad student behaviour?”

- The parents:

“Does your child engage in morally good or bad behaviour and why?”

- The teachers:

“Do your students with vision impairment and those with intellectual disability demonstrate good or bad behaviour and why? What do you think could help students to improve their behaviour?”

Table 6.2 summarizes the range of responses from the three groups of respondents in each of the two disability groups.



**Table 6.2 Overview of major response patterns from the interviews on Moral self-concept**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Keen to listen to the teacher and displayed good behaviour	VI-1, VI-2, VI-3, VI-4, VI-5, VI-6, VI-7, VI-8, VI-9, VI-10, VI-11, VI-12, VI-13, VI-14	P-c, P-d, P-e		ID-2, ID-3, ID-5, ID-12	P-h, P-i		23
2. Improper behaviour displayed by students occasionally (cause being antagonistic homes or cause not known)	VI-1, VI-2, VI-3, VI-5, VI-6, VI-7, VI-9, VI-10, VI-11, VI-12, VI-13, VI-14		T-a, T-d	ID-1, ID-6			16
3. Congenital and mild impairment/ Blindness caused no behaviour problems; adventitious and severe impairment/ low vision caused disruptive behaviour in students			T-b, T-c			T-f	3
4. Negative behaviour exhibited by students due to their disability	VI-4	P-a, P-b, P-c, P-d	T-d		P-f, P-h	T-e, T-f, T-g, T-h	12
5. Negative behaviour displayed by students due to mood swings	VI-4, VI-6, VI-11				P-g, P-j	T-h	6
6. Negative behaviour displayed by students when no modifications were implemented by the teacher in the classroom	VI-8,						1
7. Negative behaviour displayed by students when bullying occurred by non-disabled peers		P-a, P-d				T-h	3
8. No comment				ID-4, ID-11, ID-13			3
Total comments	31	9	5	9	6	7	67

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

### 6.3.1 Students with Vision impairment

In seeking to explore the moral behaviour of the students with vision impairment, they were asked to talk about their good and bad behaviours. It was found that all fourteen students were keen to listen to the teacher in the classroom, be on task and keep up to deadlines. However, the students confirmed that sometimes they engaged in activities like disrupting the class, avoiding engaging in group discussions or refusing to participate positively in class. This could partially be attributed to their vision impairment which caused them to be occasionally disengaged in class and disturb other students. Three of the students felt that if they were in a bad mood on a particular day it could lead to some negative behaviour exhibited by them. It could be manifested in the form of isolating themselves from others and not finishing school tasks on time. However, this should not be misconstrued to be taking place on a regular basis. One student linked his moral behaviour to emotions and mood swings:

*My good student behaviour is when I am organized, punctual, kind and friendly to those other students around me. My bad student behaviour is when I am in a bad mood, feeling negative I isolate myself from others, being late and not finishing the work from school. (VI-4)*

Another student described his idea of good behaviour and linked inappropriate behaviour to the learning environment and lack of appropriate modifications:

*My good student behaviour is being punctual to classes, paying attention throughout the lecture/ tutorial and responding politely and positively when engaging in conversation with staff and fellow students. Sometimes, I talk continuously during lectures/ tutorials with friends and am unwilling to engage in group discussions, especially when no modifications are being made for me in the classroom. (VI-8)*

Further, the management of tasks was another factor identified by one of the students as the catalyst for engagement.

*My good student behaviour is when I want to apply myself to work, maintain a positive attitude and get going on work. My bad student behaviour is whenever I put things off and when I am not focused on my work. (VI-6)*

Therefore, it can be concluded that students with vision impairment generally believed that they exhibited positive behaviour in class and were quite keen to live up to what they believed were their standards of good behaviour. Students reported that they engaged in what they called ‘bad behaviour’ when modifications to teaching were not implemented by the teacher in the classroom, due to mood swings experienced by students or solely due to their handicap.

### **6.3.2 Parents of Students with Vision impairment**

Parents were asked whether their child engaged in morally good or bad behaviour and why they believed these behaviours occurred. Three of the parents who had a child with vision impairment confirmed that their children were honest, obedient and helpful. However, there were occasions when they reported their children displayed arrogance, truancy and naughty behaviour in school. These parents claimed that these behaviours occurred due to the vision loss experienced by the students or when their children were bullied by other children because of their vision impairment. Two of the parents confirmed that bullying led to frustration and disengagement in class and that it was a major cause for students’ disruptive behaviour:

*He is pretty much naughty and arrogant on several occasions. Teachers should be devoting more time to calm his behaviour as they know that he is a special child and needs more attention. I try to advise him at home, but sometimes his peers bully him because of his VI and that makes him terribly upset and manifestation of that is shown in the class. Teachers should take care of the issues arising out of his VI. (P-d)*

*My child tries to show good behaviour because we always try to imbibe good values in him. However, sometimes he does engage in truant behaviour which all adolescents do, I guess. In his case, his VI is a cause of frustration for him which leads him to engage in naughty behaviour in class as well as school. (P-c)*

*I believe my child can be morally good and always wants to show positive behaviour. However, her vision loss makes her sometimes disengaged and lacking in her concentration skills which leads to poor behaviour exhibited by her. (P-b)*

*I feel my child is morally good and is always keen to show good manners. Sometimes due to her VI she gets bullied and she disrupts classroom and disturbs others. But that is purely for her VI. (P-a)*

There was one parent who said that her child was hardworking, sensible and happy and that her vision impairment was never a reason for her to exhibit immoral conduct.

*She is loving, sensible and happy because I encourage her to be herself, it's the inner person that counts. Our family motto is being true to you and never knowingly hurt others. (P-e)*

Although she also claimed that there were times when her child was known to be grumpy but recognised that was something which all adolescents and teenagers were likely to do.

### **6.3.3 Teachers of Students with Vision impairment**

When teachers were asked about the moral behaviour of their students with vision impairment, two teachers articulated that students who have congenital or hereditary vision impairment were generally the ones who were well behaved in class. They affirmed that those students who have adventitious or acquired vision impairment due to an accident or injury were simply in denial of their vision impairment and they were the ones who were responsible for all kinds of disruptive and immoral behaviour in class. Teachers reported that these students found it difficult to switch from not using a cane to using a cane and this sometimes led them to drop out of school. Two out of four teachers found that students who have low vision were quite uncooperative in classes as compared to students who are completely blind. The following quotes summarize these viewpoints held by teachers:

*Possibly some students with congenital VI are better behaved. Those that have acquired VI cannot accept their disability and it is then that they show up with all sorts of disruptive and immoral behaviour in class. (T-c)*

*The students vary considerably in their behaviour. We find that students who are blind are usually fairly well behaved. They are used to cooperating with adults. It is the students who have low vision who are either in denial of their vision impairment or they have had a more vision and then they have a decrease in vision, they find difficult to cope with that and they go through stress and they are in denial of their V.I. It is difficult for them to switch from not using a cane to using a cane & they become uncooperative, sometimes they want to drop out of subjects. Usually their behaviour relates to that. Sometimes boys will get into classes where they can identify themselves with students with poor behaviour and so then to belong to the crowd, they will join in with those students. So they are actually matching the behaviour of those students. (T-b)*

The teachers also commented that the behaviour of the students with vision impairment depended a lot on parenting as well. The kind of homes and families they came from- supportive or unsupportive played an imperative part in shaping their behaviour in class. These opinions expressed by teachers are demonstrated in the following quotes:

*Well, some students with VI simply cannot accept their impairment and so they display all sorts of bad behaviour in class. Sometimes, the home is not at all supportive and this leads to an exhibition of rude behaviour by students. (T-d)*

*I believe a lot in parenting. Being a parent myself, I feel that children need to be given firm boundaries and guidelines because I don't think at a very young age; there was enough to make good choices sometimes. Umm, so, I think a lot of behaviour can be copied and learnt and if there are no consequences, that behaviour will continue, and so whether there is negative reinforcement or positive reinforcement, I think children can react to either of those. There could be homes that are positive environments which will influence positive and encourage positive behaviour. I think there are homes which are antagonistic and negative and I think children grow up with that negativity which comes out in their behaviours as well. (T-a)*

### **6.3.4 Overview of Responses on Vision Impairment**

In summary, students with vision impairment and their parents confirmed that although students were keen to demonstrate positive behaviour in class; their occasional negative behaviours were exhibited either due to their vision loss or mood swings or when accommodations to teaching were not implemented or due to bullying that these

students had to encounter from other sighted peers. Teachers shed light on a different dimension altogether. They believed that students who are congenitally vision impaired and blind were generally well behaved; however students who are adventitiously vision impaired and have low vision were the ones who were obstinate and unruly in classes. They attributed this behaviour mainly to these students being in denial of their vision impairment and since they have had a decrease in their vision finding it extremely difficult to cope with things in their environment.

### **6.3.5 Students with Intellectual disability**

When students were asked about their good and bad behaviours, four of the students with intellectual disability believed that they almost never exhibited any form of bad or immoral behaviour in class. They behaved well with friends and family, listened to teachers and preferred to be mostly quiet in class. The responses of these students have been summarized in the following excerpts:

*My good student behaviour is being nice to people and I did not indulge in any bad behaviour in my life. (ID-3)*

*I am kind to family and friends. I don't have any bad behaviour. (ID-2)*

*My good student behaviour is being always quiet. I have never been bad. (ID-5)*

One of the students with intellectual disability claimed that though she behaved well at school due to others watching her, she sometimes indulged in bad behaviour at home in the form of yelling and fighting with family members. She stated:

*My bad student behaviour is only when I am back at home, I get angry and I yell. (ID-1)*

It seemed that due to peer pressure she was somewhat compelled to behave well in class. However, once she reached home occasionally she vented her frustrations on

family members. The findings also indicated that other students did not follow this pattern and continued their good behaviour from school to home.

### **6.3.6 Parents of Students with Intellectual disability**

When parents were asked about their children's moral behaviour, two of the parents reported that their children were honest, obedient, helpful and trustworthy. However, all four of the parents confirmed that sometimes their children with intellectual disability exhibited temper tantrums, stubborn and aggressive behaviour at home mainly due to depression or mood swings which they believed was due to their children's mild intellectual disability. These were the times when the children were not in absolute control of their behaviour and it would not be fair to judge their moral behaviour based on such situations. According to parents, schools, teachers and counsellors should teach students with intellectual disability coping strategies to deal effectively with their behaviour during these times. Selective views of parents on these sentiments are represented below:

*I feel my child always is keen to display good behaviour and tries to be honest, kind and helpful with people around him. (P-i)*

*Generally, yes. But sometimes she can be quite difficult and obstinate to handle, fails to understand obvious things and it is partly because of her ID. (P-f)*

*Hmm, I would say fairly not so much at home. I am not sure about her moral behaviour at school but at home she sometimes engages in temper tantrums. I feel she is not able to exercise the right kind of control over her behaviour, mainly due to her mood swings which she is not aware of. (P-g)*

*I feel my son is obedient and otherwise quite honest. Well, sometimes he can be disruptive, rude and insensitive though not intentional. This I feel is because of his mild ID. (P-h)*

*Yes, generally my daughter is good to people though sometimes she sets in depression and those are the times when she exhibits not so polite and decent kind of behaviour. But those are the times when she does not feel good and she is not in control of herself. (P-j)*

### 6.3.7 Teachers of Students with Intellectual disability

When teachers were asked about the moral behaviour of their students, all four teachers were of the opinion that students with intellectual disability sometimes displayed inappropriate behaviour in class. However, the exhibition of such negative behaviours should not be misconstrued that students were immoral. Most of their behaviour was unintentional and due to their disability. The following quotes represent the opinions of teachers:

*I feel students with ID sometimes are not able to control their emotions adequately and an outburst of it is often displayed in the classroom. (T-g)*

*With our students, a lot of them its disability and not intentional – it's just as a result of their disability. (T-e)*

One of the teachers confirmed that students' behaviour depended a lot on the degree and severity of their impairment. If a child was diagnosed to have a mild and borderline case of intellectual impairment, then his behaviour can be taught to be controlled, desirable and courteous by teachers. She said:

*Well, some students with ID are not able to engage in good and appropriate behaviour in class mainly due to their ID. Sometimes, it depends on the degree of impairment. If it is a mild and fairly borderline case, the child with ID can be taught to behave well in class. (T-f)*

Another teacher believed that much depended on the behaviour demonstrated by other peers in class towards students with intellectual disability. She claimed that if peers were considerate and helpful towards students with intellectual disability and included them in all activities during and after school hours, students with intellectual disability were found to exhibit positive and constructive behaviour in class. She commented:

*Some students with ID are not able to exhibit good moral behaviour in class. But that does not mean that they are immoral in their daily lives. Their disruptive behaviour is most of the times due to mood swings and their ID and during these they are most often*



*not aware of how they behave. Sometimes, their behaviour (whether positively or negatively) depends a lot on the ability of their peers to show proper and positive behaviour towards them. (T-h)*

### **6.3.8 Overview of Responses on Intellectual disability**

In summary, most of the students with intellectual disability and their parents agreed that usually students were quite well behaved in class and tried to show positive behaviour towards others except in rare circumstances due to factors beyond their control, they demonstrated some disruptive and disorderly behaviour at home. Therefore, parents were of the opinion that it would not be fair and just to judge the moral behaviour of their children with intellectual disability based on those situations. Teachers also expressed their views on similar lines and asserted that the inappropriate and unruly behaviour sometimes exhibited by students with intellectual disability were unintentional and caused due to factors over which they have little control. Whether views similar in pattern are apparent in regards to personal self-concept, are explored in the next section.

## **6.4 Personal Self-Concept**

The discussion of the Personal self-concept theme reflects the individuals' sense of personal value, merit and traits, feelings of capability as a person, able to solve problems independently and confidently and self-evaluation of one's personality. This dimension reflects the overall personality integration of one-self. To investigate the personal self-concept of the students, the following two interview questions similar in nature were asked to the three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The questions were as follows:

- The students:

“Tell me about yourself. How would you describe what kind of a person you are?”

*and*

“When you are having a problem, how do you go about solving it? Do you find problems difficult?”

- The parents:

“What kind of a person is your child and why?”

*and*

“How does your child go about solving problems? How can your child be helped to solve problems in a better way?”

- The teachers:

“Describe your students with vision impairment and those with intellectual disability?”

*and*

“How do your students with vision impairment and those with intellectual disability go about solving problems? What could help them to solve problems in a better way?”

Table 6.3 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 6.3 Overview of major response patterns from the interviews on Personal self-concept**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Students were found to have positive traits	VI-1, VI-2, VI-3, VI-4, VI-5, VI-6, VI-7, VI-8, VI-9, VI-10, VI-11, VI-13, VI-14	P-b, P-d	T-c, T-d	ID-1, ID-2, ID-3, ID-4, ID-5, ID-11, ID-12, ID-13	P-f, P-j	T-f, T-h	29
2. Students were uncommunicative, restrained and felt low due to their disability	VI-4, VI-14	P-a, P-c	T-c		P-g, P-i	T-g	8
3. Students were found to be reactive and sensitive towards others opinion	VI-4, VI-10, VI-11, VI-12	P-a	T-b, T-c, T-d		P-f, P-g, P-h, P-j	T-g, T-h	14
4. Students never ventured any new/ challenging enterprise		P-b			P-g		2
5. Students had to depend on others for their problems/ crucial tasks	VI-1, VI-4, VI-5, VI-6, VI-8, VI-9, VI-10, VI-11, VI-12, VI-13, VI-14	P-a, P-b, P-c, P-d, P-e	T-a, T-b, T-c, T-d	ID-2, ID-3, ID-4, ID-5, ID-6, ID-12, ID-13	P-f, P-g, P-h, P-i, P-j	T-e, T-f, T-g, T-h	36
Total comments	30	11	10	15	14	9	89

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

### 6.4.1 Students with Vision impairment

When students with vision impairment were asked to describe themselves, thirteen of the students perceived themselves to be cheerful, easy going, flexible, kind, caring, well organized and readily able to accept realities. These positive traits have the potential to infer that students with vision impairment can achieve their goals in life. However, two of them described themselves as reticent, quiet and shy as their disability impacted in their interactions with peers. One of the students said:

*I can see through my left eye only and I don't have any vision left in my right eye. I feel low sometimes because of my vision impairment. I try to talk to the School Counsellor to make myself feel better. Basically, I am a calm, quiet and trustworthy person. (VI-14)*

Four of the students believed that often they were sensitive and reactive to others' opinion. This is demonstrated by the following quote:

*I am also reactive, imprudent and rash to others view. (VI-10)*

When students were asked how they go about solving their problems, most of the students with vision impairment wanted to be independent in their daily lives and in every task that they performed. However, eleven of the students explained that they had to depend on others and were unable to solve their problems without some direction. One of the students was a migrant from a country other than Australia and it was extremely difficult for him to cope with independence in the Australian way of life. When students were faced with a problem, the majority of them possessed a latent desire to tackle and combat problems by themselves. However, in most situations, they had to depend on significant others and seek their assistance. Supporting this claim, few of the students have commented in the following way:

*I find it hard to solve problems related to studies. I seek help from teachers and peers. In some situation, I definitely can't solve problems without some directions. (VI-6)*

*I look into the problem in its entirety and try to solve it. Sometimes, I seek help from my dad, teacher or the Counsellor. Occasionally, I find problems very difficult depending on how big it is. (VI-14)*

*When I find problems difficult I seek help from my friends, family and relatives. (VI-12)*

*I resort to my family and friends when I have a problem. (VI-13)*

*Firstly, I take a long breath. Then, I think of the various ways of solving it. I always take recommendations and advice from elders and friends to resolve my problems. I can solve my minor problems. But with major problems, I take more time to seek help from others. (VI-11)*

One of the students expressed an extremely judicious and sensible way of solving his problems as represented below:

*Generally, I will assess the initial problem before collecting all of the pieces of information that I have access to, before reassessing the problem and trying to find an appropriate solution. With more complex problems I often find it harder to see an appropriate solution. In these cases, I usually assess the problem and information available and if I can't see an appropriate way forward I will leave the problem before returning to it later with fresh ideas. If I am still unsuccessful, I will discuss it with family, friends or other students to get an alternative opinion or viewpoint to help, which often helps to assess it from a different angle. (VI-8)*

Therefore, the general trends that emerged from the interviewees that when students with vision impairment were faced with a problem they tried to solve it independently if that was possible, or otherwise requested help from friends, families, teachers and school counsellor whoever was available. The findings indicated that there was a tendency on the students' part to rely and depend on others.

#### **6.4.2 Parents of Students with Vision impairment**

When parents were asked what kind of a person their child was, two of the parents found their children with vision impairment to be lonely and segregated due to their vision loss; one of them observed her child with vision impairment to be quite sensitive

and reactive to the opinion of others, especially if that was pertaining to his vision impairment. One of the parents observed that her child with vision impairment preferred to be in known company rather than to explore new undertakings. According to the parent, the child wanted to play safe in any new situation and feared that her vision impairment might not allow her to venture into unknown undertakings. On a positive note, two of the parents observed friendly, outgoing and cheerful traits in their children which indicated the positive qualities that students with vision impairment can have. The following quotes reflect their views:

*My child is quite sensitive and reactive to others, especially if anyone shows her sympathy due to her vision impairment. I feel she is not that outgoing compared to other teenagers of her age. Nevertheless, she is very comfortable in a known group. (P-a)*

*Introvert, however, talks a lot in known company. Can get difficult with strangers. (P-c)*

*She always wants to play safe in any situation and probably this could be attributed to her vision loss. She is not adventurous and does not want to explore new situations. Otherwise, I would describe her to be cheerful, helpful sometimes naughty and eager to listen to elders sometimes. (P-b)*

*I would say that he is friendly, wants to be outgoing. But always that is not possible for him as he anticipates other children might make fun of him due to his VI. But I have felt the strong urge in him to be outgoing and make new friends. Sometimes due to his inability to execute this, his frustration and arrogance comes out. (P-d)*

When parents were invited to respond to interview question two under the personal self-concept theme, all five parents confirmed that their children with vision impairment required the help and support of teachers, parents and some of their peers when solving their problems. A lot depended on the magnitude of the problem as well. Parents, however, indicated that some students displayed a strong urge to be independent while solving problems which is indicative of the fact that with proper training and experience, students with vision impairment are able to combat and tackle their own

problems, without the intervention of others. The following quotes reflect the views of four parents on the way their child solves their own problem:

*My child needs help while solving his problems, assistance from me or from his teachers. I feel at his school his peers should be educated more about his condition and then probably he can seek help from them. Teachers should be looking into it. (P-a)*

*I would say he needs help from teachers and relatives fairly often compared to his peers. If it is a big problem he needs regular intervention by others. I feel schools should work more in making students with special needs work more towards their independence. (P-d)*

*My child is quite independent. Sometimes depending on the magnitude of the problem he needs help from others. (P-c)*

*She always needs help from others as she can't solve her own problems. But I have noticed the desire in her to try and get her problems solved by herself. (P-b)*

One of the parents claimed that her child was always assertive in letting others know when she was faced with problems and demanded help. She offered some innovative strategies (summarized in the excerpt below) which her child used to solve problems and which could be of assistance to other students as well:

*She uses her own experiences, talks things over with family, research on the internet and is willing to accept help if it is available, but not depending on it. (P-e)*

### **6.4.3 Teachers of Students with Vision impairment**

When teachers were asked to describe their students with vision impairment, three of the teachers confirmed that students who have low vision or students whose vision has deteriorated considerably over time were the ones who could not accept their situation and tended to be rude and uncooperative in class. One of the teachers reported that students who are blind generally remained quiet, shy and withdrawn into themselves. Another teacher claimed that a lot also depended on whether a students' vision impairment was congenital or acquired. If a student was born vision impaired, they were generally well behaved and more in acceptance with their situation. However, if a

student happened to meet with an accident which caused the student to be vision impaired those were the times when the student displayed negative, oppressive and depressive symptoms in class. These views of teachers are represented in the following quotes:

*Students who are completely blind tend to be more quiet and withdrawn, students with low vision are in complete denial of their situation and very easily they can set in depression and frustration as well. (T-c)*

*However, those students who have had considerable vision deterioration over time cannot come terms to their situation and it is then when it becomes difficult to control their behaviour. Students who are born vision impaired are usually well behaved and in terms with their condition; contrarily, students who have acquired vision impairment through accident and illness, cannot accept their situation and display negative behaviour in class. (T-d)*

When teachers were asked as to how students with vision impairment solved their problems, all four teachers commented that students with vision impairment like the general population usually went to their relatives, teachers or a peer whom they were close to share their problems. According to teachers, students with vision impairment did not possess the skills and expertise to solve their problems independently. One of the teachers thought it the ideal situation if students with vision impairment were flexible enough to ask for help from others if they were in a problem as that could lead them to combat the problem in a better way. This teacher believed that being surrounded by adults especially when students were in difficulty was actually a good measure to deal with the problem. The views of teachers are reflected in the following quotes:

*Students with VI often seek help from parents and teachers, as they require it. (T-c)*

*I think students with VI need considerable help and support from others in solving their problems. A lot goes to the school Counsellor and teachers whom they can trust. (T-d)*

*I think children or students, whether they are younger or older need to grow up and prepare to ask for help which a lot don't – umm, help in solving their problems. I think if they grow up and try lots of different ways of doing things that can help in learning*



*that there are different ways of solving a problem. Umm, I guess being flexible and yeah, I guess encouragement from people around and being prepared to have other people around them helping them. So, I think that is being constantly surrounded by people who can help them whether it is their peers or adults and being prepared to do something different if something's not working. (T-a)*

*Adolescence go to their friends when they have a problem and often the problems are around their friends or families. So usually the V.I. students are just like the general population. They will go to their friends and then they will go to the trusted adults & so if they feel closer to a particular staff member or one parent or an aunty or an uncle, or a trusted brother or sister, they often seek help from them. (T-b)*

#### **6.4.4 Overview of Responses on Vision Impairment**

In summary, the majority of students with vision impairment and their parents perceived many affirmative traits held by the students themselves. However, two of the students due to their vision impairment, described themselves to be uncommunicative and reserved in the presence of other sighted peers while four of them considered themselves to be reactive and sensitive towards the opinion of others. Two of the parents noted their children with vision impairment to be isolated and lonely; one found her child with vision impairment was hostile and sensitive to the opinion of others; while another never found her daughter with vision impairment to venture new and risky undertakings. One of the teachers established that personal qualities developed in students with vision impairment depended a lot on the kind of vision impairment (congenital or acquired). Teachers believed that students whose vision considerably decreased over time were the ones known to demonstrate uncooperative and antagonistic characteristics. On the contrary, students who are blind were noted by teachers, to be taciturn and withdrawn in most situations. The three groups of participants- students with vision impairment, their parents and teachers agreed that when students were faced with problems, the general tendency on part of students was to depend and turn to important others. Though some students had the inherent urge to

combat problems independently; however, owing to their vision loss had to rely on significant others.

#### **6.4.5 Students with Intellectual disability**

When students with intellectual disability were interviewed to describe themselves, eight out of nine students considered themselves to be nice, friendly, kind, trustworthy and responsible. The responses of two students, listed below indicated that they were generally liked by their peers and others because they were honest, helpful and obliging in nature:

*I am trustworthy, smart and always happy and bubbling. I have lot of friends. (ID-13)*

*I am a responsible, kind, wonderful person and I reckon the people whom I meet like to get close to me. I go to the mainstream and have lots of friends there. (ID-1)*

When students with intellectual disability were asked how they solved their problems, seven of them confirmed that it was impossible for them to solve problems independently. Much was also contingent on the magnitude of the problem as well. But usually, the majority of them found problems quite overwhelming and difficult. They often sought the help of peers, teachers or sometimes elders as demonstrated in the quotes below:

*I can't solve problems myself. I have to consult friends and parents. (ID-4)*

*I tell my problems mainly to my teachers. (ID-5)*

*I can't solve problems myself. (ID-6)*

*I prefer to work out my problems by talking to friends, teachers and families. (ID-13)*

Overall, a few students expressed an urge to be more independent and to solve problems themselves. But often due to their intellectual disability, they lacked judicious

strategies and effective coping mechanisms to combat real life problems, requiring the intervention of others.

#### **6.4.6 Parents of Students with Intellectual disability**

When parents were asked what kind of a person their child was, two of the parents believed that their children were reliable, responsible and helpful in most situations:

*Well, I feel my daughter can be quite helpful and reliable in certain instances. (P-f)*

*My daughter is a friendly, cheerful nice girl. (P-j)*

Another two of the parents noted their children with intellectual disability to be shy and secluded from their peers, mainly because they were labelled and branded by their peers:

*He is quiet, shy and sometimes prefers to be secluded and lonely. I think he is not comfortable and at ease in his peer group, owing mainly due to his intellectual impairment. Sometimes, his peers make fun of him and label him to be foolish and silly which really upsets him. (P-i)*

Four of the parents found their children to be sensitive and reactive at times to the opinion of peers. This often led to depression and frustration among these students as is evident from the quotes below:

*However, she can be quite reactive and argumentative to people whom she doesn't like. (P-f)*

*My child is quite sensitive and reactive to others, especially if anyone bullies her due to her ID. (P-g)*

*What I have observed of him is that he is better off at home rather than school. At school, I feel some negative behaviour from his peers (due to his ID) triggers him off and can be the cause of displaying any rude behaviour from his end. His teachers, I feel should be more cautious about this. (P-h)*

*Though I have seen her behaving well with people on most occasions she may engage sometimes in aggressive and rude behaviour when she is not feeling that well. (P-j)*

In terms of solving problems, all five parents reported that their children with intellectual disability often resorted to help and assistance from teachers, parents and the school Counsellor. While parents appreciated and encouraged the help taken from teachers and school Counsellors, they did not welcome the idea of seeking advice from peers as parents believed that children with intellectual disability might end up receiving the wrong information from peers. Three of the parents further attested that they could not depend and rely much on the peers of their children with intellectual disability, as peers often were the main source of bullying and discontentment in their children's lives. These views of parents are evident in the quotes below:

*She often needs help from me to solve her problems. Schools should help her to be more independent to solve her problems. (P-f)*

*Hmm, that's a difficult one. Okay, I would say in all possibilities my child needs assistance to solve her problems. I feel the school Counsellor should play a positive role in this regard. The school Counsellor should help her by providing her strategies to get her problems solved. (P-g)*

*My daughter often resorts to her friends for quick solution. I feel she should be getting the right kind of advice from her teachers and the school Counsellor. (P-j)*

*My child needs help and support from others to solve his problems. Though I have seen the urge in him as not to depend on others. But sometimes due to the nature of his problems (can be quite serious) he needs help from outside. What I fear is that he may be receiving the wrong kind of advice from his friends. So I would not encourage him to depend too much on friends. (P-h)*

Generally, students with intellectual disability were found to rely too much on others in solving their problems which could later have an adverse effect on their independent problem solving skills.

#### **6.4.7 Teachers of Students with Intellectual disability**

When teachers were asked to describe their students with intellectual disability, one of them commented that she found her students to be shy, introvert and aloof from most of their peers in class. According to the teacher, some of her students with intellectual

disability participated in a small and known group. They feared to interact with new people, lest they became the subject of bullying:

*Some I have noticed to be shy and introvert as they prefer to remain aloof and are unable to mingle with the class. But this could be because of their ID and also because they could be bullied. (T-g)*

Two of the teachers found their students exhibited rude, aggressive and hostile behaviour in class but those were the times purely attributed to mood swings and depressions which these students encountered from time to time. This is evident in the quote below:

*I would say some of them can be hostile, aggressive and disruptive but again that is because of their impairment and mood swings. (T-g)*

One of the teachers, further commented that sometimes, new teachers were not adequately trained and inexperienced to handle students with intellectual disability and that could cast a negative impact on the behaviour of these students. The response below confirms the claim made by the teacher:

*Some teachers are not trained enough to handle students with ID and that is when the problem comes in. In such situations, the teacher can't handle the student with ID and the student in turn engages in hostile and insensitive behaviour in class. But this is occasional and may not always be the case. (T-h)*

On a positive note, according to two teachers, students with mild intellectual disability were able to display positive traits; however, they needed teachers and parents to play an active role to facilitate the desirable behaviour in them:

*Students with ID can be responsible, understanding only with extra and caring effort from teachers. (T-h)*

When teachers were asked as to how students with intellectual disability go about solving their problems, all four teachers confirmed that these students did not possess the necessary skills and expertise to solve their own problems. They constantly required

the help of teachers and parents from time to time. Two of the teachers devised good strategies for students with intellectual disability to help them solve their own problems. These teachers provided students with real life case examples and problems, set up different problem scenarios and then prompted them with strategies to deal and manage those problem areas. This is a clear indication that teachers are striving to prepare their students with intellectual disability for the larger real world, outside the boundaries of the school as is evident in the quotes below:

*Students with ID can never solve their problems on their own. They need considerable help and attention from teachers and parents. (T-f)*

*I feel that students with ID just cannot solve problems on their own. Left alone, they might be lost and completely swayed away. Teachers and parents have to constantly be on the go to find out about their problems and devise strategies for them to solve them. (T-g)*

*Students with ID need the help and assistance from others to solve their problems. They do not have the skills and expertise to get things sorted out on its own. Providing them with real life case examples is a good way to teach them to handle problems. (T-h)*

*We, in class, we do examples and we probe play and we set up different scenarios like, say what would you do in this situation and I think for some of them like it a bit but others doesn't help. (T-e)*

#### **6.4.8 Overview of Responses on Intellectual disability**

In summary, eight of the students with intellectual disability described themselves as possessing many optimistic and constructive qualities. Parents, however, pointed out that their children were often labelled by other non-disabled peers to be foolish which was the cause of many introverted and depressive symptoms habitually occurring within students with intellectual disability. Teachers noted negative and aggressive behaviour in students with intellectual disability; however, they attributed the causes to be bullying, students' cognitive deficits, mood swings and inexperienced teachers. The interview responses from all the three groups of participants- students, their parents and

teachers established that students with intellectual disability did not possess the necessary skills and expertise to solve their problems independently and in almost every situation necessitated the help and assistance from close acquaintances. The family lives of the students in the two discrete disability groups are investigated in the next section.

## **6.5 Family Self-Concept**

The discussion of the Family self-concept theme reflects the individual student participants' feelings of satisfaction, importance and merit as a family member and their perceptions about their family. It refers to the individual's relationship to their immediate relatives in the form of parents and siblings. To determine this, a similar question was asked to the three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The questions were as follows:

- The students:

“Tell me about your family? What kind of relationship do you share with your family members?”

- The parents:

“What kind of relationship do you and other members in your family have with your child and why?”

- The teachers:

“What is the relationship between your students vision impairment and those with intellectual disability and their family members and why?”

Table 6.4 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 6.4 Overview of major response patterns from the interviews on Family self-concept**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Students share a good and amiable family relationship with some members	VI-1, VI-2, VI-3, VI-6, VI-7, VI-8, VI-9, VI-11, VI-12, VI-13	P-e	T-a, T-b	ID-2, ID-3, ID-4, ID-5, ID-6, ID-11, ID-12, ID-13	P-g	T-e	23
2. Students share a distant relation with a non-disabled sibling only	VI-3, VI-5, VI-12	P-a, P-c			P-h		6
3. Students share a detached relation with their biological parents	VI-10, VI-14	P-d,	T-a				4
4. Students share an unfriendly relation with their family members due to their disability or if they have a step/ single parent	VI-4, VI-5, VI-9, VI-14	P-b	T-b, T-c		P-h, P-i, P-j	T-h	11
5. Students are found to share a considerate relation with another sibling with disability			T-d	ID-1	P-g	T-f	4
6. Female students / mothers are found to share a better relation as compared to their male counterparts/ fathers					P-f	T-g	2
Total comments	19	5	6	9	7	4	50

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

### 6.5.1 Students with Vision impairment

When students were asked about their family relationships, ten of the students with vision impairment commented that they shared a good and congenial relationship with some members of their families. However, three of them had difficulties maintaining a



positive relationship with their siblings. Usually, their siblings without impairments were not considerate enough towards their vision loss. This was confirmed in the following views:

*My brother and myself get along quite well because we share the same room. I do not get along well with my second older sister who simply fails to understand me. (VI-3)*

*Well, I have two brothers and one sister with whom I can't get along well. However, my mom and dad are very supportive towards my vision impairment and I share a good relationship with them. (VI-12)*

The students' interview responses also revealed that some of the parents were separated and this had led to some unrest among the children with vision impairment. Five of the students with vision impairment confirmed (in the quotes below) that either their biological parents or step parents have always caused them worry and distress:

*I do not talk to my mom much. I am close to my dad and lived with my dad since I was six months old. My mom stays in another house. (VI-14)*

*My parents are wonderful people and I love them very much. I get along great with my step father but not with my biological father as he does not relate to my disability. (VI-10)*

*We generally get along well but at times there are differences between my own and step parents, brother and myself. My own mum and dad are both hardworking. (VI-5)*

*My mum is very supportive of me in every way. But I have a very bad relationship with my father and step mum which was my decision. (VI-9)*

It is only one student who expressed complete mistrust in her family and confirmed that she shared an extremely hostile relationship with her family members. She said:

*My stepdad is a gambler who goes to work but gambles with his money at a club or Poker. My mum is the same and if either me or my 20 year old brother does not listen to her, she threatens us to get out of the house. My 20 year old brother James is a Poker Dealer at a casino and he has a girlfriend. My 11 year old brother Ricky is a violent child with no respect. (VI-4)*

Overall, the students with vision impairment seemed to share a pleasant relationship at least with one member of the family. Others in the family were quite insensitive and

unresponsive to the visual needs of the students and required to be educated about the conditions of the students' vision impairment.

### **6.5.2 Parents of Students with Vision impairment**

When parents were asked about the family relationships their children with vision impairment shared, only one of the parents said that she shared a happy and comfortable relationship with her daughter. She commented:

*I share a wonderful relationship with my daughter. We care deeply for each other. There is nothing that we can't discuss. I always make time to answer her questions properly and have done so ever since she could speak. (P-e)*

Three other parents believed that a misunderstanding with a step parent or another sibling without disabilities often came in the way for the student with vision impairment. Most students with vision impairment felt in such circumstances that they were not wanted or cared for in the house and this led to real concerns in terms of their family self-concept as is expressed below:

*I am divorced and my daughter seems not to be comfortable with her step dad (my partner). She feels that probably her step dad considers her to be a burden in the family due to her VI, though I know that this is not the case. I feel that my partner needs to talk to her regarding this more openly. Since he is very busy and always remains outside the house, he didn't actually sit with her to get things sorted out. (P-b)*

*Well, I share a good and positive relationship with my daughter with vision impairment. I feel that my son is somewhat insensitive towards my daughter, especially towards her visual needs. Sometimes, I have seen my son getting impatient towards my daughter. (P-a)*

*My other children without disability do not quite understand my son with vision impairment. (P-c)*

Another parent attributed the nature of her work (demanding and hectic) to unhappy family relationships between herself and her son with vision impairment. She said:

*I want to achieve the best relationship with my son, especially when I know he needs me the most. However, due to my busy work schedule I often cannot give him enough time. This is one of the main reason for discontentment between us. (P-d)*

### **6.5.3 Teachers of Students with Vision impairment**

When teachers were asked of their perceptions about the family relationships their students with vision impairment shared, two of the teachers articulated that students with vision impairment had good family relationships if they were given equal importance and rights as siblings. If the whole family went out and the student with vision impairment was made to sit back at home due to his/ her disability, that could lead to discontentment and mistrust between the student with vision impairment and other family members. According to three teachers, the best and an ideal home environment was when students with vision impairment were able to participate equally in the family and were included in all family matters and also when the home was extremely supportive in terms of the visual needs of the student. These views of teachers are demonstrated in the following quotes:

*Students with VI love their parents if they receive equal rights as other siblings. (T-d)*

*Umm, some parents are hugely involved in the students life – a whether it's at school or at home, whether it's out in the community, with sports or social events or churches or things like that, I think there are families that are inclusive and do a lot as a family and I think there are other families where children can be a bit more separate that the children just have to do their own thing without the importance and influence of their parents. (T-a)*

Two other teachers commented that step or single parent households often engaged in tensions and controversies with the student with vision impairment:

*I have found students with VI are happy in family relationships if there are no step parents. (T-c)*

*Most of the students live in one parent families and there are other complications as well. (T-b)*

One of the teachers further pointed out that a student with vision impairment often got along well with another sibling with disability:

*Usually they have a good relationship if there is another sibling with disability as both can understand each other well. (T-d)*

#### **6.5.4 Overview of Responses on Vision Impairment**

In summary, students with vision impairment seemed to share a pleasant relationship with one member in the family. However, there were others in the form of a non-disabled sibling or a step/ biological parent who appeared quite unresponsive and inconsiderate towards the visual needs of the students often causing discontent. Parents were of the opinion that they tried to share a good and amiable relationship with their children with vision impairment; however, they acknowledged that factors like the hectic and demanding work schedules of parents and insensitive attitudes displayed by siblings without disabilities and step-parents were the primary causes of miserable family relationships. According to teachers, students with vision impairment could share blissful and contented family relationships if they were treated equally and at par with their non-disabled siblings and included in all family matters. One of the teachers believed that another sibling with a disability in the family often understood the student with vision impairment well. Two of the teachers further claimed that often in single parent or step-parent homes, a child with vision impairment was found to be dejected and discontented with family relationships.

### **6.5.5 Students with Intellectual disability**

When students with intellectual disability were asked about their family lives, eight of the students with intellectual disability claimed to share happy, contented and satisfied family relationships. These students reported they got along well with other siblings, parents and sometimes with grandparents as well. Students with intellectual disability commented:

*I share a good relationship with my family. Mum works till 5 p.m. We go out on the weekends. I have three sisters and one brother and we share good relationships. (ID-2)*

*My family (mum+ dad+ nanny+ brothers+ sisters), all are nice. (ID-3)*

*My mum has been divorced long time ago. My mum is single and I stay with my mum. I have my brother. I share a good relationship with my mum and brother. (ID-5)*

*My family constitutes of my grandpa, grandma and my sisters. We all share a good relationship. My sister lives somewhere else and I just live with my grandma and grandpa. (ID-13)*

*I live with my mum. I see my dad every second weekend. I get along well with my three sisters. (ID-6)*

One of the students with intellectual disability seemed to get along well with her sibling also with a disability. This is evident from her quote below:

*I live with my other sister because she has a disability and I understand her well. We all love each other and we do fun stuff. (ID-1)*

### **6.5.6 Parents of Students with Intellectual disability**

When parents were asked about their children's family lives, one of the parents commented that her daughter with intellectual disability was able to share a good and pleasant relationship with family members. According to this parent, family relationships were good and agreeable for her child with intellectual disability because there was another sibling with disability too in the family:

*Well, my husband and I share a comfortable and understanding relationship with my daughter. My elder daughter is disabled too and she can understand the younger one quite well. They get along well and we seem to be a happy family. (P-g)*

However, three other parents commented that in families where there were step parents or non-disabled siblings, often conflicts and discord arose with the child with intellectual disability. It was in such situations where the child with intellectual disability believed that they were not cared for and loved in the family. Such diverse views of parents are represented in the quotes below:

*I try my level best to understand my son well. There are times when he can become quite hostile and insensitive towards his other siblings and that are when the conflict sets in. (P-h)*

*Sometimes, I have found my son too inert and withdrawn that he does not share his problems with me. It could be due to a mistrust developed in him due to his step father. He feels that his step father doesn't love him and he doesn't feel comfortable sharing his problems with me (P-i)*

One of the parents interestingly commented that a female child with intellectual disability seemed to share a better and friendlier relationship with family members when compared to a male child with intellectual disability. She even went on to comment that it was always easier to handle a daughter rather than a son with intellectual disability:

*I share a good and contented relationship with my daughter. I feel since I am blessed with a girl child, it is always easier to handle and understand a girl child compared to a boy child. (P-f)*

### **6.5.7 Teachers of Students with Intellectual disability**

When teachers were asked about the family lives of their students with intellectual disability, a common trend observed by one of the teachers was that usually students with intellectual disability had a good family life if they had another sibling with disability. In such situations, the siblings were known to understand each other's problems and situation well. One teacher reported:

*Usually, students with ID have a good relationship if they have another sibling with disability as well. In such situations, both siblings understand each other well. (T-f)*

Another teacher noted that mothers were found to share a close and more intimate relationship with their child with intellectual disability as compared to fathers. The reason cited by the teacher was that mothers were more patient, considerate and understanding, typical of motherly traits in comparison to fathers, especially when dealing with a child with impairment. The teacher said:

*I will say that my students with ID share a good relationship with their mothers because I feel mothers can be more patient, considerate and understanding towards them compared to their fathers or other siblings. (T-g)*

Two other teachers also found that students with intellectual disability were well adjusted to their family life if they did not have a step parent as often these students felt that they were not cared for or wanted in the family by the step parents. Students with intellectual disability anticipated that their step parent perceived them to be a burden in the family and this strained relationships amongst family members. This is evident in the following quotes:

*Students with ID usually share a healthy relationship and are close with family members. One student I remember had a very hostile home environment because his mother was divorced and he felt that his step father simply hated him and didn't bother for his well being at all. (T-h)*

*I had a student last year that didn't get any help from step parent. (T-e)*

### **6.5.8 Overview of Responses on Intellectual disability**

In summary, eight of the students with intellectual disability generally shared good and amiable family relationships, preferably with a sibling with disability. Parents and teachers were also of the view that students with intellectual disability were found to share a pleasant relationship with another sibling with disability. However, family discontent arose in situations where a non-disabled sibling or a step-parent seemed to be insensitive to the requirements of the child with intellectual disability. One of the

parents believed that it was easier to handle a girl child with intellectual disability in comparison to a boy child with intellectual disability. One of the teachers recognized that mothers were more intimate, thoughtful and considerate towards a child with impairment in comparison to fathers. Whether such divergent responses emerged in regards to social self-concept, are explored in the next section.

## **6.6 Social Self-Concept**

The discussion of the Social self-concept theme reflects how the self is perceived in relation to others. It refers in a more general way to the individual's ability to interact socially with others, especially with peers. To explore students', parents' and teachers' views of the way the students in each of the two disability groups under investigation interact with friends, they were asked the following questions:

- The students:

“Who do you like to mix with and why? What would help you to interact better with friends?”

- The parents:

“How is your child's social life and why? What do you think would help your child to interact better with friends?”

- The teachers:

“Describe your students with vision impairment and those with intellectual disability' social life with peers? What could help students in their social interaction?”

Table 6.5 summarizes the range of responses from the three groups of respondents in each of the two disability groups.



**Table 6.5 Overview of major response patterns from the interviews on Social self-concept**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Students interacted well with peers especially who had common interests to share	VI-1, VI-3, VI-5, VI-6, VI-8, VI-9, VI-10, VI-11, VI-12, VI-13, VI-14	P-e		ID-1, ID-3, ID-5, ID-11, ID-13		T-e, T-g, T-h	17
2. Students unable to interact well due to their disability	VI-2, VI-7, VI-8, VI-11	P-a, P-b, P-c, P-d	T-b, T-c, T-d	ID-6	P-f, P-g, P-h, P-i, P-j	T-e, T-g, T-h	20
3. Students did not interact with friends by choice or due to their family being isolated			T-a	ID-2, ID-4, ID-12			4
4. Students unable to interact well due to not owning their own transport	VI-4, VI-5, VI-8						3
5. Students noted to have many online friends; however, not in the real classroom		P-e				T-f	2
Total comments	18	6	4	9	5	4	46

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

### 6.6.1 Students with Vision impairment

When students with vision impairment were asked about their social lives, eleven of the fourteen students claimed to interact well with same age peers as they had common interests to share. Some preferred to mix with older or younger people. The interview responses that confirm this are as follows:

*I mix with a lot of people. I interact well with my peers. I hang out with friends and they introduce me to other friends. (VI-3)*

*Yes, I interact fairly well with friends. I spend quality time with my friends. (VI-6)*

*I like to mix with people who have same interests as me. I can interact better if people are nice to me. (VI-14)*

*I like to mix with people of my own age because we relate to each other and we like the same things, we have the same preferences and many things in common. I like to mix with younger people because it is nice to know what they feel. I also go to the mainstream and have friends there. I interact pretty well with my friends. (VI-1)*

*I like to mix with anyone so that I get to know other people and their stories. (VI-13)*

One of the students further commented that he favoured interacting with people with good knowledge and talk on different topics so that he could learn from them. Since he hails from a different culture and he is vision impaired, it is time taking for him to regulate his social life:

*Definitely, I like to mix with people who have good knowledge/ wisdom so that I can learn from them. I like to talk on different topics e.g. politics, religion, sensible arguments etc. Since, I am in a different culture with varying expectations, so it is taking time for me to adjust here especially because I am vision impaired. But, hopefully I will be there. (VI-11)*

Four of the students, however, had grave concerns about their social life. They claimed this was mainly due to their vision impairment. Two among them explained they felt shy, embarrassed and awkward when interacting with their sighted peers, stating they

were subject to bullying by their peers. The views of these students are expressed below:

*In the mainstream, I try to interact with friends but I get nervous sometimes because of my vision impairment and I can't interact with them as well. Sometimes, my peers in the mainstream can get out of control and so I try to stay away from them. (VI-2)*

*I don't have many friends maybe because of my visual constraint. I fear I might be ridiculed about my vision loss. I have night blindness and so I don't like attending late night parties as I do not want my friends to drop me. I do not want to be a burden on them. I was susceptible to some bullying in school because of my vision impairment. (VI-7)*

One among the four linked lack of confidence due to his vision loss to poor social interactions:

*I think I would interact better if I had more confidence in myself, not present because of my vision loss. (VI-8)*

Three of the students with vision impairment claimed that due to their not owning a car or not being able to drive, their social life had significantly suffered. Their ability to meet new people was restricted due to their inability to drive and to own their own transport. This is confirmed in the following excerpts:

*I would like to mix with other people except that a car is a barrier, which I don't have and it does affect my opportunity to interact with more people. (VI-4)*

*It would be easier for me to mix with friends if I had some sort of transport to go to their house or out for tea, as I am blind. (VI-5)*

*I think I would interact better if I had better access to friends peers though proper own transport. (VI-8)*

In summary, the majority of the students with vision impairment believed they interacted well, some feared that their disability might interfere with their peer interactions and there were yet others who believed that the absence of a transport in the form of a car limited their social interactions.

## 6.6.2 Parents of Students with Vision impairment

When parents were asked about their children's social lives, four out of five parents confirmed that their children with vision impairment were usually lonely, shy, isolated and they had a somewhat dull and boring social life. These parents believed that students with vision impairment were unwilling to take any social risks because of their vision loss or because they were apprehensive that they might be ridiculed or bullied in public. According to one of the parents, sighted peers often found it a burden to invite students with vision impairment to parties and social hangouts. Another parent described her daughter's social life as reasonably satisfactory; however, she argued that her daughter was often comfortable in a known group and did not want to interact with new people. Three of the parents believed that teachers and school counsellors should take note of the unsocial and uninvited situations experienced by students with vision impairment and devise strategies to include students who are sighted and those with vision impairment naturally and effortlessly in the classroom. These related views of parents are established in the following excerpts:

*I would say her social life is somewhat weird. She is shy and embarrassed to interact with new people as she thinks her vision deficiency could make her an object of bullying. Help from teachers and peers could help her to do away with this shyness. (P-a)*

*He is shy and quiet and that makes his social life dull and boring. I feel his peers don't bother to invite him to social parties because of his VI. He is also somewhat withdrawn due to this. His peers need to be aware of his condition and also need to be more considerate towards him. (P-c)*

*I feel that my child is lonely and isolated mainly due to his VI. He feels he is different from his peers and he is unable to take any social risk. His teachers and the school Counsellor should take on a lead role to help him to get out of this situation. (P-d)*

*I would say her social life is fairly decent. She does not want to interact with new people. However, she feels comfortable and safe in her known group. What I have*

*noticed that on several occasions she has expressed the desire to be more extrovert but needs that extra support from school. (P-b)*

One of the parents pointed out that her daughter's online friends understood her better compared to her school friends. This student with vision impairment had known her online friends for several years and there were daily interactions between them. According to this parent, her daughter shared a close and intimate relationship with her online friends as opposed to her classroom peers. Recently she went overseas to meet some of her online friends:

*Online- great daily interactions as opposed to her classroom friends, known these friends for many years and recently she went overseas to meet them. (P-e)*

This is indicative of the growing value and importance that the cyber world can have on the lives of students with vision impairment.

### **6.6.3 Teachers of Students with Vision impairment**

When teachers were asked about the social lives of their students with vision impairment, three out of four teachers commented that students who are blind usually did not socialize in class and they tended to remain quiet and shy most of the times. One of the teachers believed that students with vision impairment would wait for social interactions to be structured and they were more compliant to the school structure and routine in comparison to their sighted peers. They had fewer friends but on the whole they were better behaved. Another teacher articulated that sighted students perceived students who are blind to be slow and dependent and therefore, did not invite them to their groups. Teachers established that the lower the vision the more challenging it was for the student to interact. According to the teachers, students with low vision would walk into the classroom and have enough vision to choose their seats, know who was in the class room and learn names of students quickly. So they were involved in the social

chit chat that took place in the classrooms. In the break time they would hang around with other kids and gradually get accepted. Students who are blind found this much more difficult. They were not sure who was in the classroom until one spoke. Sometimes they found it difficult to navigate in the classroom if tables were moved and bags were in the way. According to the teachers, high school classrooms were not very tidy or organized. Teachers claimed that students who are blind were not very chatty in between classes because they concentrated on moving and using their canes. When students got to the age of having parties in the weekends, the students who are blind were usually not invited. These related views of teachers are confirmed by the following quotes:

*Students with VI, particularly those completely blind find it very hard to establish social connection with peers. Often they are left out in parties as they are considered as burden by peers. Even in other out of class activities, students with VI are not invited by their peers as they are perceived slow and dependent by their peers. (T-d)*

*Students who are blind generally tend to be quiet and shy anticipating that they might not be able to contribute substantially in a group and so they think the best option would be is to be out of the group. (T-c)*

One of the teachers claimed that students with acquired vision impairment often did not get along well with peers, as these students were in denial of their state of vision impairment and this was a constant source of dissatisfaction and discontentment in their lives. The following quote reflects this:

*I believe students who have acquired VI as a result of an accident or injury cannot come in terms with their situation and they are the ones who simply can't interact well with peers. (T-c)*

On a positive note, one of the other teachers indicated how the school was being used as a platform for social interactions between students who are sighted and those with vision impaired:

*In the school, we have lunch time activities where students with vision impairment come and bring their friends. So it serves as a venue for them to catch up with other sighted students. (T-b)*

#### **6.6.4 Overview of Responses on Vision Impairment**

In summary, students with vision impairment believed that they interacted well with their sighted peers. However, some recognized that they had difficulty due to their vision loss or due to not having their own transport. Parents confirmed that the social lives of their children with vision impairment were somewhat inept and often isolated because of their loss of vision and the bullying from sighted students. One of the parents found that her child with vision impairment had many quality friends online rather than in the mainstream classroom. Teachers established that the lower the vision (especially if it is acquired vision impairment) the more challenging it became for the student to interact. Teachers further argued that students with vision impairment found it hard to establish social connections with their sighted peers, were often left out of parties and class activities and were frequently considered a burden by their sighted peers.

#### **6.6.5 Students with Intellectual disability**

When students with intellectual disability were asked about their social lives, four out of nine students commented on their social behaviour and stated that they were usually quiet and reticent and were unable to interact well on most occasions. These four typically described themselves to be introverted. One of them even preferred to listen to music during lunch hours rather than interacting with peers. One of these four students, on a positive note, expressed a keen desire to interact with more and more friends. These views of students with intellectual disability are confirmed by the following quotes:

*I don't like to mix with people. I could interact better. (ID-2)*

*I am not friendly and people don't talk to me much. (ID-4)*

*I interact not so well. (ID-12)*

*I do not have a proper social life due to my disability in school. I put my music on my ears during lunch and recess time. (ID-6)*

Five other students claimed that they had many friends and always wanted to interact with everyone in school. However, in a group situation one of the students resorted more to listening to their peers as opposed to conversing with them. The following quote substantiates this:

*I like to mix with everyone in school. I can interact better by listening to friends more, not interrupting them while they are talking. (ID-1)*

Two out of the five students believed that sometimes they experienced some difficulties in initiating a new conversation or sustaining any discussion in a group situation:

*I like to mix with everybody in school. Sometimes, I find it difficult to start a conversation. (ID-13)*

*Yes, I like to talk to friends. I go to the mainstream and have friends. I find it hard at times to carry conversations in a group situation. (ID-11)*

Another student indicated that he could interact better with mainstream peers only if they were in a problem situation and by helping them; he could fit well into the group:

*I mix with the mainstream kids. I could interact better by sticking up with my friends if they have trouble and by helping them. (ID-5)*

### **6.6.6 Parents of Students with Intellectual disability**

When parents were asked about their children's social lives, they tended to focus on their children's social behaviour and in doing so, five of the parents described their children with intellectual disability as shy, reclusive and lonely. Two of the parents noted that though their children with intellectual disability had the enthusiasm and



interest to meet new people, their intellectual impairment often came in the way of their interaction. Parents indicated that what these students feared was they might be the subject of mockery and sarcasm in public which they had often experienced in the classroom in the presence of their peers. They explained that repetition of this negative experience a number of times led students to believe that they were not as worthy and intelligent as their peers, which in turn caused them to isolate themselves. Some of the interview responses which confirm this are as follows:

*My daughter is quite shy and introvert. She does not have many friends. Teachers, I think should play an active part in breaking the ice between her and her friends. (P-f)*

*I think my daughter's social life is quite boring. She is often left out when her friends are into some parties. Schools should do something about this. They should be involving her more in group discussions and pairing activities. (P-g)*

*I would say his social life is awkward. He is shy and embarrassed to interact with new people. Sometimes, he had to experience some bullying from his friends because of his ID which has left him more shy and depressed. (P-h)*

*I would say that generally he is quite eager to meet and interact with new people. But there is something that stops him. Probably his impairment comes in action. Teachers, school Counsellors should be looking into this and build their communication and social abilities in a more positive manner. (P-i)*

*I have seen the enthusiasm in my daughter to interact, talk and share things with her friends. However, there is something that does not allow her to mix freely with people. Probably her intellectual impairment does not allow her to interact wholeheartedly with her friends, lest she should become the object of ridicule at school. (P-j)*

Therefore, the evidence from the parents' interviews clearly shows that students with intellectual disability in this sample tended to have a boring, isolated and awkward social life and most parents believed that teachers should intervene in such situations.

### 6.6.7 Teachers of Students with Intellectual disability

When teachers were asked about the social lives of their students with intellectual disability, all four teachers found that students with intellectual disability preferred to stay secluded and isolated in the mainstream classes and lacked proper social networks with their non-disabled peers. One of the teachers established that students with intellectual disability had greater friends online as compared to the mainstream classrooms. A possible reason cited by her, was that these students were receiving greater comfort and warmth from their online friends as opposed to their mainstream classroom peers. It seemed that the non-disabled peers were simply not bothered to include students with intellectual disability in their social hang-outs and private parties.

The following excerpts from the teacher interviews confirm this:

*Non-disabled peers do not invite students with ID for social gatherings and parties which is a main reason for this social gap. (T-g)*

*They might fear that their disability might not be welcomed by everyone and they simply cannot get along well with new people. (T-h)*

*This really depends on the students individual characteristics. Some can interact well while some don't. I have seen that some students with ID have more number of friends online as compared to the school. (T-f)*

Three of the teachers also noted that students with intellectual disability interacted well and had many friends if they were attending a special setting as compared to a mainstream class. In a special setting they could connect well with other students with disabilities because they had common interests to share with one another and understood each other well. This was acknowledged in the following excerpts:

*I have seen that the general trend is students with ID can interact with peers who have a disability as well, somehow they seem not to get along peers who are non-disabled. (T-g)*

*In the special school setting, it's I would say it's in their disabilities, it is a very close knit group and the class is very supportive and there is no bullying, no teasing, nothing like that and most of them can get on very well with each other. (T-e)*

*What I have seen that students with ID can interact well with peers if they are in a special setting with only children with disabilities. However, in mainstream setting students with ID do not have that social bond with non-disabled students. (T-h)*

### **6.6.8 Overview of Responses on Intellectual disability**

In summary, four of the students with intellectual disability indicated that they did not interact well with peers and even the ones who believed that they could interact well, faced difficulties in initiating or sustaining a conversation with peers. These students mostly remained restrained, uncommunicative and isolated. All parents and teachers found students with intellectual disability to be isolated and secluded from their mainstream peers. Some parents believed that these students were the object of scorn and contempt by students without disabilities due to their cognitive impairments. Three of the teachers found students with intellectual disability to interact well only with peers with disabilities in a special setting. Students with intellectual disability were noted by one of the teachers to have great social networks online, however, not so in their regular classrooms. Whether such unique responses are found in regards to the academic self-concept, are explored in the next section.

## **6.7 Academic Self-Concept**

The discussion of the Academic self-concept theme refers to how students perceive themselves in school and college settings and how spontaneously and easily they can approach new tasks and learning. The academic self-concept focused on students' learning and did not compartmentalize itself into different school subjects. The three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability were asked the following:

- The students:

“How do you go about learning new things?”

- The parents:

“How does your child go about learning new things and why? What could help him/her in this respect?”

- The teachers:

“How do your students with vision impairment and those with intellectual disability go about learning new things? What could help them in this respect?”

Table 6.6 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 6.6 Overview of major response patterns from the interviews on Academic self-concept**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Students exhibited a readiness and willingness for new learning	VI-1, VI-2, VI-3, VI-4, VI-5, VI-6, VI-7, VI-9, VI-10, VI-12, VI-13, VI-14	P-c		ID-1, ID-2, ID-3, ID-5, ID-6, ID-12, ID-13	P-g, P-j		22
2. Students find it difficult and time consuming for new learning mainly due to their disability	VI-8, VI-11	P-b, P-d	T-a	ID-4	P-f, P-h, P-i	T-f, T-h	11
3. Students interpreted failure easily and quickly for new learning		P-a			P-g		2
4. Students new learning depends on any 3 factors: teacher's skills and efforts, provision of proper resources & family support			T-b, T-c, T-d			T-e, T-g, T-h	6
5. No comment		P-e		ID-11			2
Total comments	14	5	4	9	6	5	43

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

### 6.7.1 Students with Vision impairment

When students with vision impairment were questioned as to how they go about learning new things, twelve out of fourteen students expressed tremendous zeal towards learning new things. They believed that they had common sense and they could grasp new concepts quite readily. These students portrayed a keen willingness and readiness towards learning new concepts. Though some of the students were hesitant and apprehensive about interacting with their sighted peers (confirmed by the preceding section on social self-concept) due to their impairments, they seemed quite responsive and eager when it came to interacting with new learning. The following comments suggest that in general students with vision impairment were enthusiastic and quick in mastering novel things; however, with intervention, help and assistance they seemed to perform even better:

*I take it one step at a time. I put lot of thoughts into it and I try to understand the concept with a lot of effort into it. If I can't then I seek help from my teachers. (VI-1)*

*I am quick in learning new things. I have a lot of common sense. (VI-7)*

*I learn new things easily as I have got a readiness in me to accept new things. (VI-12)*

*I learn new things quite easily by interacting. (VI-13)*

*I get excited and willing to learn about a topic as much as I can. The more I learn, the experienced I become. (VI-4)*

*I love learning new things and I strive to achieve in every area of my life. I love challenges. (VI-9)*

The summative responses from the students with vision impairment portrayed that the majority of them were quite positive, interested and prepared to take in new experiences, learning and challenges in their lives. Two of the students, however, contradicted these positive views made by other students and established that they

found new things complex and time consuming to learn due to their vision difficulty.

They commented:

*I often find it hard / time consuming to grasp new concepts. I really enjoy learning new things but often find myself spending large amounts of time studying something before I fully understand the details of a concept. Usually, I have to read and re-read information several times to help with understanding it fully. (VI-8)*

*It is hard for me to understand an abstract concept or theory unless it is backed up by a good understanding of the teacher. Sometimes, I find it hard to understand difficult things due to my vision impairment. (VI-11)*

However, two out of fourteen was just a meagre proportion to overrule that students with vision impairment had a general willingness and acceptance towards learning new things.

### **6.7.2 Parents of Students with Vision impairment**

When parents were asked as to how their children go about learning new things, two of the parents expressed concerns that learning for their children with vision impairment may sometimes be difficult and time consuming and they often needed to put in additional effort than their sighted peers:

*My son always needs that extra effort to learn new things due to his vision loss. I think new learning is not an easy and spontaneous process for him. I think he has a lot of common sense. However, I strongly feel that if he did not have the visual deficiency he could have performed better in school. (P-d)*

*I have seen the enthusiasm in my daughter to learn new things. Sometimes, she may go a bit slow due to her VI. But her teachers, special educators should help her more in this (P-b)*

One of the parents believed that her child with vision impairment had a genuine interest and enthusiasm to learn new things but often required extra help and support from teachers and school counsellors:

*He is fairly interested in learning new stuff, quite keen and eager in mastering things. However, I feel that more intervention and help from school teachers and perhaps the school Counsellor could make him more competent towards learning new things. (P-c)*

Another parent believed that her daughter with vision impairment interpreted failure too easily and quickly and that often limited her ardour for new learning. She too argued that greater support and assistance from the school and teachers could benefit the student with vision impairment. She commented:

*I feel my daughter is cautious about learning new tasks and sometimes she may interpret failure quite easily. The school, her teachers should help her more in this regard. (P-a)*

One of the parents further suggested that different software for students with vision impairment should be provided free from the schools. She also argued that to make new learning easy and natural for students with vision impairment, varied and special modifications should be made for students with vision impairment in the classroom as well as in a testing situation:

*I think teachers at school should make proper modifications in their teaching to make new learning easy and quick for them. Other kinds of services (in the form of various softwares) should be offered free from the State to help children with VI. The curriculum should be more inclusive and special and extensive arrangements should be made during examinations for students with special needs, especially in important exams like NAPLAN. (P-d)*

### **6.7.3 Teachers of Students with Vision impairment**

When teachers were asked as to how their students go about learning new things, three of the teachers articulated that the learning abilities of students with vision impairment depended a lot on the support arrangements provided, how productively students used those support services to their advantage and how effectively teachers implemented modifications in the learning of students with vision impairment. If teachers were well organized, planned their lessons prior to teaching them and provided materials to



students with vision impairment in the enlarged print or Braille format, it made a huge difference (positively) to access to learning for students with vision impairment. The following quotes from the teacher interviews support these findings:

*Students vary in their learning ability and they also vary in the skills before they start secondary school. Some student can learn quickly because they make good use of the support that is provided in schools. The other thing that, affects ability to learn is the teacher's skills. If the teacher is well organized, who plans ahead and gets resources ahead so that the resources can be changed to large print or Braille that helps the students' ability to learn that subject quickly. (T-b)*

*Students with VI generally need to be provided with more support to make learning easier for them. The right kind of helpful and supportive environment in the class helps them to learn faster and better. (T-c)*

*The learning abilities of the students with VI depend a lot on the teachers at school. When teachers have planned their lessons and always promptly provide modifications to students in the form of large print or Braille handouts, it makes a huge difference on the students learning capacities. (T-d)*

Two of the teachers pointed out the importance of the home and family and how this can positively impact on the learning abilities of students with vision impairment:

*Also family back up is important. If they have a family that supports them to do their homework & make sure they have the required stationary and go to bed on time that makes a huge amount of difference on them. (T-b)*

*The learning abilities of the students with VI depend a lot on how supportive is the home. (T-d)*

The environment in the classroom and positive behaviour displayed by sighted peers were also considered by one of the teachers to be the key for successful learning outcomes for students with vision impairment:

*The environment in the classroom, the behaviour of their peers impacts a lot on VI students learning abilities. (T-d)*

One of the other teachers articulated that vision impairment in itself was a good reason to argue that students with vision impairment learned slowly in comparison to their peers because they tended to miss out on that first visual impression of either a person or their surroundings. According to this teacher, students with vision impairment were

quick to pick up on audio cues, yet most activities in the day to day living were heavily dependent on visual cues like acceptable behaviour, body language and facial expressions and these students did not learn much from these activities and the subtle nuances as they could not see them. Students with low vision took time to learn new things specially if the new activity was visual cue dependent as they had to put in that extra effort to make use of their residual vision. This made new learning more stressful and time taking for them. The teacher said:

*I think their vision definitely impacts their learning because they miss out on that first impression – visual impression of either a person or surroundings, when they go, umm, to a friend's place or another family, or outside or to sport, they miss out on that first visual, umm, concept that others might get, umm, so that they are always having to pick up what they hear and sometimes what they hear can be misinterpreted. Umm, I think vision impaired or blind students miss out on a lot of visual cues in regards to may be behaviour what's acceptable, body language, the facial expressions and things like that they don't learn, because they don't see them. (T-a)*

#### **6.7.4 Overview of Responses on Vision Impairment**

In summary, twelve of the students with vision impairment found new learning/scholarship spontaneous, stimulating and exciting and explained ways and means to engage in it. However, two of the students found new learning to be difficult and time-taking and had to be backed up by adequate support and assistance. Though one of the parents believed that her child with vision impairment had a genuine interest and enthusiasm for new learning, two other parents noted that these students lacked the skills to spontaneously engage in new learning due to their vision loss. Parents further identified that students with vision impairment required extra help and support from their teachers and counsellors. The majority of the teachers believed that to make new learning natural and easy for students with vision impairment, teacher's skills and expertise, provision of appropriate support services and supportive home and classroom environments were key factors. One of the teachers pointed out that if a new learning/

activity was heavily visual cue dependent, students with vision impairment might find the new learning/activity stressful and time-consuming.

### **6.7.5 Students with Intellectual disability**

When students with intellectual disability were questioned as to how they go about learning new things, one of the students claimed that she generally took more time to learn new things as compared to her non-disabled peers:

*I can't learn new things quickly in comparison to my friends. (ID-4)*

However, seven of the students with intellectual disability expressed a keen desire and eagerness for new learning. Sometimes, they could learn things easily, depending on the level of difficulty of the new learning. Most students devised their own strategies to learn new tasks. Some believed that practise makes perfect and by repetition/ working on a task again and again they could master it well. Others learned from modelling or maintaining a routine to learn new things. One of the students expressed her concerns in any learning related to Mathematics, English and sometimes Australian Studies. These discrete views of the students with intellectual disability are demonstrated in the ensuing quotes:

*I can learn new things by playing/ practising new games which helps my memory. (ID-2)*

*I learn new things by working over it again and again. (ID-3)*

*I can learn new things through modelling and repetition. (ID-6)*

*In some ways I am a quick learner. I have a routine of learning new things. However, I have difficulty learning in Mathematics, sometimes in English and a bit in Australian Studies. (ID-1)*

Therefore, the interview responses indicated that students with intellectual disability often possessed the zeal and impetus to learn new things and devised their own techniques to accomplish new learning, a positive dimension.

### **6.7.6 Parents of Students with Intellectual disability**

When parents were asked how their children go about learning new things, three of the parents described their children with intellectual disability as slow and time consuming learners:

*I feel my daughter is generally slow in learning new things compared to her peers. She needs more repetition and practice. (P-f)*

*My son is slow in learning new things because of his ID. But he has to be helped to learn in his own way. He is very impatient and fidgety with new learning. (P-h)*

*I wouldn't rate my son as a competent learner. He has poor concentration. He needs more assistance, practice and help to master new skills. (P-i)*

Two other parents claimed that their children with intellectual disability demonstrated the desire and urge for new learning, however one out of the two argued that her daughter interpreted failure too often and too quickly which discouraged her from engaging in new learning:

*My daughter has the zeal and enthusiasm to learn new things. It is only with abstract concepts that she finds it difficult to understand. (P-j)*

*My daughter has got the urge in her to learn and grasp new concepts. However, she interprets that she would meet failure too often and gives up the task at hand too easily. She is often easily distracted. Teachers should be more consistent and have more patience in dealing with her. They should spend more time on her, on a one on one basis. (P-g)*

The general trend that emerged from parents' interview responses were that students with intellectual disability lacked concentration skills, were restless and gave up the task in hand too quickly. Parents believed that more support, assistance and cooperation

from schools and teachers in the learning of students with intellectual disability are needed.

### **6.7.7 Teachers of Students with Intellectual disability**

When teachers were asked as to how their students go about learning new things, two out of four teachers noted students with intellectual disability fall behind in the academic arena mainly because of their cognitive problems. According to these teachers, students with intellectual disability took more time and required extra effort to learn and grasp new concepts. These students generally took longer compared to their non-disabled peers to understand new learning and needed constant supervision by teachers in their learning processes. Three of the teachers believed that students with intellectual disability benefitted greatly from one on one interactions, the inclusion of hands on activities, constant drilling and repetition of the same activities again and again. Some of the subsequent quotes represent this:

*Students with ID are not able to learn new things quickly mainly because of their intellectual deficiencies as they take more time in understanding things compared to their peers. (T-f)*

*Students with ID generally take more time and require extra effort to learn new things and this could make their whole learning journey frustrating and boring as well. More one on one dealings and hand on activities can make new learning comparatively easier for them. (T-h)*

*More one on one, that's what affects me, more one o' one. We have one exercise for 11 students and most of our students, not all of our students' need one on one – and that would help. (T-e)*

*I feel some students with mild ID can learn new things with regular drilling and more effort on the part of the teachers. By making students practice and repeat a task again and again, students with ID do learn new information. (T-g)*

### **6.7.8 Overview of Responses on Intellectual disability**

In summary, although seven of the students with intellectual disability demonstrated an ardent desire for new learning, one of the students revealed that he could not learn new

things as easily and spontaneously as his non-disabled peers, owing mainly to his intellectual disability. Overall the findings from the interviews revealed that students with intellectual disability required a greater amount of drilling, practice, repetition and modelling. Parents too confirmed that their children with intellectual disability lacked concentration skills due to their cognitive deficits and interpreted failures too often and early which were some of the reasons for them to grasp new concepts slowly. Teachers were also of the opinion that students with intellectual disability took more time, required extra help and needed constant monitoring and supervision to learn and perform new activities. Whether such dispiriting responses are obtained in regards to test anxiety, are explored in the next section.

## **6.8 Test Anxiety**

The discussion of the test anxiety theme refers to the fear of examinations that students can encounter before and during a testing situation or prior to submitting an assignment. Test anxiety “is a benign problem to some but it can be malignant” when it leads to high levels of distress and academic failure in otherwise capable students (Wachelka & Katz, 1999, p. 1). To investigate the test anxiety experienced by students, questions similar in nature were asked to the three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The questions were as follows:

- The students:

“Describe your feelings when you take an assessment/assignment. Why do you think you feel this way?”

*and*

“Do you get anxious in tests or before submitting assignments? Why and what could help you to overcome this?”

- The parents:

“Does your child get anxious during tests or before submitting assignments? Why do you think this occurs and what could help your child to overcome this?”

- The teachers:

“Do your students with vision impairment and those with intellectual disability get anxious during tests or before submitting assignments? Why do you think this is so? What in your opinion could help anxious students to overcome these feelings during tests?”

Table 6.7 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 6.7 Overview of major response patterns from the interviews on test anxiety**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Students are nervous before and during exams due to factors like high expectations, difficult test questions, lack of preparation and confidence etc	VI-1, VI-3, VI-4, VI-5, VI-6, VI-8, VI-12, VI-13	P-a, P-d	T-b		P-f, P-h, P-i		14
2. Students are nervous before and during exams due to their disability	VI-11, VI-14	P-c	T-a, T-c, T-d	ID-1, ID-2, ID-3, ID-4, ID-5, ID-6, ID-11, ID-13	P-g, P-j	T-e, T-f, T-g, T-h	20
3. Students are anxious if the test is not in the right format for them			T-b, T-c				2
4. Good strategies have been provided to ease and calm students before exams	VI-5, VI-6, VI-9, VI-11, VI-12, VI-14	P-a, P-d	T-a, T-d	ID-1, ID-5, ID-6, ID-13		T-g	15
5. Students felt relaxed and confident during exams	VI-2, VI-7, VI-9, VI-10	P-e		ID-12			6
6. Oblivious and ignorant of whether students had anxiety before and during an exam		P-b					1
Total comments	20	7	8	13	5	5	58

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers



### 6.8.1 Students with Vision impairment

When students were asked about whether they experienced test anxiety, ten of the students with vision impairment confirmed that fear of examinations was a common thing that affected them. They described their feelings as anxiety, impatience, restlessness, sweaty fingers and cold chills down their spines. Five of these students established high academic standards for themselves and to achieve them became a real concern. Three of the students attributed their fear of tests to lack of preparation and confidence. Students with vision impairment reported:

*I am nervous depending on the subject. I get nervous because I always got the best results and so to maintain that I feel nervous. (VI-1)*

*I always wanted to do best in all the exams. When I write an exam or test I focus so much on what I have to write that I don't think about my feelings. However, before my exams I am a little bit impatient and restless. I am nervous for subjects like Chemistry and Mathematics. (VI-6)*

*Initially, I worry but eventually it becomes okay. I get nervous because I think I have to perform well. (VI-13)*

*Nervousness and concern, primarily because I like to maintain a high academic standard, but usually fail to do as well as I would like. (VI-8)*

*Sometimes, I get nervous, depending on how I study. If I don't study enough, then I get nervous. While taking an assessment, I can overdo the talking when not supposed to and my fingers sweat and I have chills down my spine because I feel afraid of being assessed by another person. (VI-4)*

Two of the students claimed that they were nervous during tests due to their vision impairment. One out of the two students articulated that thoughts like whether accommodations in the form of large print or extra time would be provided for him during exams bothered him. The following quotes reflect these two students' views:

*I do get anxious in tests but it depends on the type of tests. Sometimes, I get anxious in tests because of my vision impairment and whether accommodations will be in place for me. (VI-11)*

*I am nervous sometimes because of my vision impairment. I feel I could have been more competent if I did not have a disability. (VI-14)*

Four of the students with vision impairment, on the other hand, seemed to be quite relaxed and calm during examinations and their vision loss did not influence them negatively during tests:

*I am quite relaxed and take it easy during tests. (VI-2)*

*I don't get stressed about exams. I just go with the flow. (VI-9)*

*I am fine with taking tests. I am confident in my own abilities. (VI-10)*

In general six of the students exhibited some practices to overcome their test anxieties. More learning in a weak subject area, a greater amount of practice, additional reading and performing meditation exercises were some of the popular strategies engaged in by the students with vision impairment before taking an exam. The following quotes demonstrate some of the strategies tried by students with vision impairment to overcome their test anxiety:

*I try to overcome my test anxiety by talking it out to my teachers, thinking calm and reading questions thoroughly. (VI-6)*

*I can overcome my fear during tests by learning and practicing more. (VI-14)*

*I can overcome my test anxiety by spending more time preparing myself for a test. (VI-12)*

*I have found my own strategies of dealing with test anxiety such as revising a lot before the exam, clearing my mind, deep breathing and telling myself that I can do it. (VI-9)*

*Being taught different methods for learning and remembering information can help me. (VI-5)*

Therefore, it is apparent from the interview responses that these students with vision impairment were fairly flexible and able to devise strategies for themselves to overcome their fear of examinations; however, they indicated this requires the intervention from teachers, special educators and school counsellor.

## 6.8.2 Parents of Students with Vision impairment

When parents were questioned whether their children experienced test anxiety, three out of five parents agreed that their children with vision impairment suffered from the fear of examinations:

*Yes, sometimes she is nervous during tests because she feels she might not be able to perform to the best of her ability. (P-a)*

*Yes, I have seen my son getting stressed out before an exam. (P-d)*

One of the parents contemplated that her child's vision loss might not allow him to perform to his optimum level and considered it to be a reason for his anxiety during examinations:

*Yes, my son gets fairly tensed during tests. This could be because of his VI. He needs to practice more. (P-c)*

Three of the parents suggested that relaxation and meditation techniques can be useful to calm one down before exams, repetition and practice and providing extra time to students with vision impairment during an examination should help them to take a test or exam better. The quotes below represent the views of parents:

*She needs to meditate, learn and practice her content well and special modifications in the form of extra time should be there to help her. (P-a)*

*What he needs is proper relaxation techniques introduced at school, one to one sessions from the Counsellor and kind consideration from his teachers. (P-d)*

*Schools should provide all students some strategies and exercises to calm down before examinations. (P-c)*

One of the parents appeared ignorant and uninformed about whether her child was a victim to test anxiety or not:

*Not that I know of. However, I feel her teachers need to ensure that she has learnt her lessons well. (P-b)*

Another parent clearly stated that she never found her child to experience test anxiety because her child always prepared her lessons well in advance and had a good breakfast too.

*No, she prepares and has a good breakfast. (P-e)*

### **6.8.3 Teachers of Students with Vision impairment**

When teachers were asked whether their students experienced test anxiety, three out of four teachers believed that the vision loss in itself was a good reason for students with vision impairment to experience test anxiety. According to these teachers, though students with vision impairment were given 1/3 rd of extra time during examinations compared to their sighted peers and proper resources were provided to them beforehand, however, the fact that they could not read a sentence in its entirety and had to scan information in a test word by word, was a cause of worry to them. Two of the teachers expressed the view that sometimes, students with vision impairment worried before examinations if the test was not in the right format for them. Some of the succeeding quotes demonstrate the teachers' perceptions on their students' test anxiety:

*Students with VI can get very nervous and anxious before tests more than their peers because they constantly fear that their vision handicap might not allow them to perform to their best ability. (T-d)*

*If it's one that relies on reading problems, if they have some residual vision that relies on reading a question, then definitely because I think they would be worried have they got the right information – have they read it carefully when they are having to read and scan word by word - they don't see the overall sentence often, umm, in its entirety – they see parts of it so, I think it's probably harder for them to put that all that together. That confidence can probably be learnt - the more they are exposed to that type of testing. (T-a)*

*Students with VI can become quite nervous in tests sometimes due to their visual deficiency. A lot depends on whether the test is in the required format for them, for example in the large print or Braille format. These things can sometimes unnecessarily worry students with VI before a test/ examination. (T-c)*

*Most students who show that they don't care much, but when it comes to an exam, they get crunchy. Some students feel quite ill. If the test has not been formatted properly for students with V.I. then that can cause anxiety for students with V.I. (T-b)*

One of the teachers further pointed out that lack of preparation and failure to revise before tests has been attributed as another reason for students to experience test anxiety:

*Some students are naturally more anxious during tests. Some students do a lot of preparation before tests. They feel more confident. Other students know they have not prepared or revised before tests and so they become very anxious during tests. (T-b)*

Teachers argued that there were some exams which were more difficult for students who are blind or have low vision to take. An instance pointed out by a teacher (T-b) was in a music exam, where a Braille dependant student had to read all the music notations in Braille and it was really difficult for him to sit through the exam. It took him longer to read the Braille music notation compared to the sighted students. Another example cited by a teacher (T-b) was for a student with a restricted field vision, during a dance exam. The student was required to observe an incredibly difficult sequence of dance steps and then perform it. This was an extremely difficult exam for this student and caused him unnecessary worry and anxiety during the examination. The format of the exam could not be changed because it was a group situation. Therefore, the result was that his grade had to be given for the dance sequences that were done throughout the year because the exam format could not be changed to accommodate his vision needs. Teachers indicated that these types of exams can cause real worry and anxiety for students with vision impairment.

One of the teachers believed that students' confidence can be increased and the fear of examinations can be substantially reduced provided the frequencies of the exams were

increased. If students had to perform a task a greater number of times in a year that might make them more competent and confident on that task:

*That confidence can probably be learnt - the more they are exposed to that type of testing. If it's a one term test, then they are going to be really anxious whereas if every week they have a little test in the classroom, I think that anxiety starts to wane a bit because of the experience of that. I believe that in any sort of testing the more they are exposed to it, the more relaxed they feel about it because it's that confidence a thing.*  
(T-a)

Some other good strategies provided by teachers to reduce test anxiety in students with vision impairment were more practice, repetition, drilling, over learning and providing the right kind of resources to students with vision impairment during examinations.

#### **6.8.4 Overview of Responses on Vision Impairment**

In summary, the majority of the students with vision impairment and their parents confirmed that students experienced anxiety and stress before and during exams, for a number of diverse reasons. Some students set such high academic standards and expectations for themselves and to achieve that they had to undergo a great amount of worry and tension. Others attributed students' test anxiety to lack of preparation and confidence, improper test format and the vision impairment by itself. Teachers found that sometimes exams, such as dance and music were heavily visual and cue dependent and it was these exams which might be exceptionally difficult for a student with vision impairment. These were the times when the student had to endure unnecessary stress and angst during the exam.

#### **6.8.5 Students with Intellectual disability**

When students were asked about whether they experienced test anxiety, eight out of nine students claimed that they were extremely nervous and shaky before and during an

examination or when submitting an assignment, owing mainly due to their cognitive or intellectual problems. One of the students commented that she usually took more time to prepare herself for new learning, making it the sole reason for her to be anxious and worried during examinations. The following excerpts substantiate this:

*I am extremely nervous while taking an examination due to my intellectual disability. (ID-2, ID-11, ID-3, ID-4, ID-5)*

*I get very nervous and shaky during tests and assignments because I take more time to learn due to my intellectual disability. (ID-13)*

*I am very anxious and nervous if there is some written work to do. I want to get the written work done straightway and get extremely nervous if I can't do that. (ID-6)*

On the contrary, one of the students reported that she never experienced any test anxiety while taking any test:

*I am not nervous while taking tests. (ID-12)*

On a positive note, four of the students with intellectual disability made an effort to devise some coping mechanisms to help them deal positively with examinations. Over preparing oneself, learning to calm down, taking deep breaths, meditation, maintaining structure and routines were some of the successful strategies practiced by students when faced with a testing situation. The following quotes reflect these positive acts practised by students with intellectual disability:

*I can overcome my test anxiety by taking deep breath, focusing on the test and not worrying about it. I drink water also. (ID-5)*

*I can overcome my test anxiety by taking deep breaths, calming myself down and a little bit more preparation. (ID-13)*

*Structures and routines are a good way for me to escape fear during tests. (ID-6)*

*I sometimes talk to myself and say to myself that I'll get the worry out. Meditation is good for me. (ID-1)*

### 6.8.6 Parents of Students with Intellectual disability

When parents were asked whether their children experienced test anxiety, all five parents indicated that they observed their children to suffer from exceptional test anxiety, worry, nervousness, sleepless nights and sweaty palms before and during an examination. Two of the parents attributed students' intellectual difficulty to be the main reason for this reaction. Two of the parents also claimed that the fear of failure was so high in students with intellectual disability, that it did not allow them to think rationally and judiciously in an examination. The parents' views are reflected in the following quotes:

*My daughter is very nervous and stressed before an exam. Even though she is prepared for her test, I find her quite tensed and worrying unnecessarily before an exam. Relaxation strategies can probably help her. (P-f)*

*Yes, sometimes she is nervous during tests because she feels she might not be able to perform to her optimum capacity. The fear of failure is quite strong in her and it could be because of her ID. Teachers and schools need to work more on students with ID before a test or exam. (P-g)*

*My son is fairly relaxed if it is an easy test. However, if it happens to be a difficult exam I can see the worry and tension in him. He needs to learn more to relax himself. Probably with maturity he would be fine. (P-h)*

*Sometimes, my daughter gets terribly nervous and worried because of exams and I think it is partly because of her ID. Her other siblings do not suffer from this and therefore I feel this is a lifelong problem with her. (P-j)*

*Oh, yes, my son is very nervous before and during an exam. He gets those uncanny feelings like sleepless nights, feeling ill and sweaty palms just before an exam. The fear of failing is so high in him that it interferes with his abilities to think clearly and in doing things correctly. I feel that because of his nervousness he cannot perform that well in tests. He needs to learn some calming techniques. His regular and special education teachers need to come forward and help him in this regard. Explaining him new concepts again and again can be helpful. I feel his teachers need to spend more time with him. (P-i)*



Parents' were of the view that fear of examinations was commonly experienced by students with intellectual disability and they believed that schools and teachers have not taken any active measures to overcome this problem.

### **6.8.7 Teachers of Students with Intellectual disability**

When teachers were asked whether their students experienced test anxiety, all four teachers were of the opinion that students with intellectual disability experienced test anxiety and unnecessarily worried and feared before submitting any assignment. Teachers articulated that these students displayed physiological reactions in the form of bodily fearful symptoms before submitting assignments or performing tasks. Teachers alleged that this was mainly due to the intellectual impairment that these students perceived failure too often and too easily. One of the teachers' recommended that these students should engage in constant practice and over learning any new skill/task so that they are able to perform it effortlessly and she argued that only then should they be tested on that new skill/ task. Some of the opinions of the teachers are represented in the following quotes:

*Students with ID can get quite anxious and nervous before assignments and that is mainly due to their disability. (T-f)*

*I have seen students with ID having gooseflesh and feeling unwell before assignments or if they are told to perform tasks. That is because of the lack of confidence in them due to their disability. However, with practice and over learning they can possibly and eventually improve. (T-g)*

*Generally, I have seen all students with ID unnecessarily worry about doing assignments. This is because the success rate is so low in them as compared to their peers, that they fear that they might meet with failure too often and too quickly. (T-h)*

### **6.8.8 Overview of Responses on Intellectual disability**

In summary, eight of the students with intellectual disability reported that they experienced high levels of stress and anxiety before an examination. This was attributed to factors related to their intellectual disability and greater time required by these students for preparation. Similarly, parents and teachers also agreed that students with intellectual disability experienced stress and anxiety due to factors related to their cognitive disabilities and higher fear of failure. In addition, one of the parents recognized that students with intellectual disability' failure to think rationally and judiciously was another factor that caused them to experience higher levels of test anxiety. According to the three groups of participants, test anxiety seemed to be an impediment for many students with intellectual disability.

## **6.9 Chapter Summary**

In Chapter 6, interview narratives were grouped and analysed into seven prominent themes in relation to the two disability cohorts. This chapter reported the views of students with vision impairment and those with intellectual disability, and their parents' and teachers' accounts of these students' physical, moral, personal, family, social, academic self-concepts and test anxieties. It identified a number of reasons for the high or low self-concept and test anxiety of the students with vision impairment and those with intellectual disability. Students', parents' and teachers' views proved to be multidimensional and complex and hence added considerably to understanding how life and school experiences impacted on the self-concept and test anxiety of the students concerned. In the next chapter, the interview analysis under the remaining two themes in Stage 2, 'Influence of the Support Services on Students' Problem Solving Skills,

Family, Social and Academic Lives’ and ‘Influence of the Support Services on Students’ Test Anxiety’ are discussed. Chapter 8 will provide a full discussion of the questionnaire data together with the interview responses concerning self-concept, test anxiety and support services.

# **CHAPTER 7: ANALYSIS OF STAGE 2 INTERVIEW RESPONSES: SUPPORT SERVICES**

## **7.1 Introduction**

This chapter reports the participants' perceptions of the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on these students' problem solving skills, family, social and academic lives and test anxiety. The interview responses were collected from the three groups of participants (students, parents and teachers) in the two disability cohorts. The interview data were analysed in relation to the two broad themes that emerge from the last two research questions in Chapter 1, 'Influence of the Support Services on Students' Problem Solving Skills, Family, Social and Academic Lives' and the 'Influence of the Support Services on Students' Test Anxiety'. The range of viewpoints expressed enabled the researcher to examine the research questions from different perspectives. In the sections that follow, these last two themes are discussed in turn, using illustrative quotations from the interviews where relevant.

## **7.2 Influence of the Support Services on Students' Problem Solving Skills, Family, Social and Academic Lives**

Quality support services play a significant role in the overall development of students with vision impairment as well as those with intellectual disability (DECD, 2012a). The investigation of support services offered in schools explored the impact of support services on these students' problem solving skills. The impact of the support on the student's family, social and academic lives was also explored. To determine the influence, a set of questions similar in nature were asked to the three groups of

respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The interview questions were as follows:

- The students:

“Has the support services in your school influenced you in your approach to solving problems? If so how?”

“Did the support have any impact on your family life?”

“How has the support you have received helped you in your school or social life?”

and

“Do you think that the support you received has helped you to be more independent to study and work better? If so, how and in what ways has it helped you?”

- The parents:

“Do you think that the support services helped your child to tackle problems? If so, in what ways?”

“Have the support services had any impact on your child’s family life?”

“Do you feel that the support services had an impact on your child’s social life? If so, in what ways?”

and

“Do you think that the support services have helped your child to be more independent to study and work better? If so, how and in what ways has it helped?”

- The teachers:

“How have the support services influenced students’ abilities to tackle problems? If so, in what ways?”

“Have the support services had any impact on students’ family life?”

“How have the support services influenced the students’ social life?”

and

“Do you think that the support services have helped your students to be more independent to study and work better? If so, how and in what ways has it helped them?”

Table 7.1 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 7.1 Overview of major response patterns from the interviews on support services and students' problem solving skills, family, social and academic lives**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Support services helped students to solve their problems in some way	VI-1, VI-2, VI-3, VI-4, VI-6, VI-10, VI-11, VI-12, VI-13, VI-14	P-a, P-b, P-e	T-a, T-b, T-c, T-d	ID-1, ID-5, ID-6, ID-12	P-g, P-i,	T-e, T-f, T-g, T-h	27
2. Support services helped students to develop independent living skills			T-b, T-c, T-d			T-e, T-g, T-h	6
3. Support services helped students in their social lives	VI-1, VI-2, VI-3, VI-4, VI-5, VI-10, VI-11, VI-12, VI-13, VI-14	P-a, P-c, P-e	T-a, T-b, T-c, T-d	ID-1, ID-2, ID-3, ID-5	P-f	T-e, T-f	24
4. Support services helped students in their family lives	VI-1, VI-2, VI-10	P-a, P-c, P-e	T-a, T-b, T-c	ID-3	P-f		11
5. Support services helped students in their academic lives	VI-1, VI-2, VI-3, VI-4, VI-5, VI-6, VI-10, VI-11, VI-12, VI-13, VI-14	P-a, P-b, P-c, P-d, P-e	T-a, T-b, T-c, T-d	ID-1, ID-2, ID-3, ID-4, ID-5, ID-6, ID-12, ID-13	P-f, P-j	T-e, T-f, T-g, T-h	34
6. Support services had no/ negative impact on students' family lives	VI-3, VI-4, VI-5, VI-6, VI-7, VI-8, VI-9, VI-11, VI-12, VI-13, VI-14	P-b, P-d	T-d	ID-1, ID-2, ID-5, ID-6, ID-11	P-g, P-h, P-i, P-j	T-e, T-f, T-g, T-h	27
7. Support services had no/ negative impact on students' social lives	VI-6, VI-7, VI-8, VI-9	P-b, P-d		ID-6, ID-11, ID-13	P-g, P-h, P-i, P-j	T-g, T-h	15
8. Support services had no/ negative impact on students' abilities to solve problems	VI-5, VI-7, VI-8, VI-9	P-c, P-d		ID-11	P-f, P-h, P-j		10
9. Support services had no/ negative impact on students' academic lives	VI-7, VI-8, VI-9			ID-11,	P-g, P-h, P-i		7
Total comments	56	20	19	27	20	19	161

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

## **7.2.1 Students with Vision impairment: Influence of Support Services**

The student participants with vision impairment were questioned whether the support services influenced their problem solving skills, family life, social competence and independent study and work abilities.

### **7.2.1.1 Students with Vision impairment: Influence of Support Services on their Problem Solving Skills**

When students were asked whether the support services in school influenced their approach to solving problems, ten of the students with vision impairment claimed that the support services helped them to solve problems in a better way. One student reported that the support teachers from the Specialist Vision Support Unit were very cooperative. Another student stated that she was provided with help from the teacher aide on a one-on-one basis. The following quotes reflect the comments from two students:

*The way the support teachers' talk is better than the normal teacher. The support teacher reaches out to me in a better way than the normal teacher on one to one appointments. (VI-3)*

*The staff in the Vision Unit are very cooperative. They will take the time to sit down and help with any problems/ difficulties I have. (VI-1)*

One of the students believed that spending more time with the support teacher was the key to successful problem solving in his life:

*The support teacher spends more time with me which is the reason I am able to solve problems. (VI-13)*

Another two students linked the support to their academic problems and established that the support services in the form of enlarged print and more time to complete tests and assignments assisted them to solve many of their academic related problems:

*The supports like enlarged print and extensions in assignments have helped me to solve my academic problems. (VI-12)*

*Yes, the time factor, enlarged print, extensions on assignments has helped me to solve my problems. (VI-6)*

One of the students established that greater resources and modified software specially designed for students with vision impairment helped her to solve her day-to-day problems:

*Modified laptop access and access to technology and software in greater magnitude helped me to solve my daily problems. (VI-10)*

Two other students with vision impairment related successful problem solving to the development of affective relationships with support teachers based on empathy:

*My support teacher has helped me a lot because she told me to take a few deep breaths before acting and just smile throughout life because it builds confidence. She is understanding and sympathetic whenever I discuss problems, no matter what the problem is and it is this good rapport and trust with her that helps me to solve my problems. (VI-4)*

*Yes, the support teacher has helped me to identify the problem clearly and then discussed strategies to handle the problem. I have found this technique useful in solving my problems when the support teacher is compassionate towards me. (VI-2)*

While three of the students with vision impairment believed that the support services had absolutely no influence on their problem solving abilities, one of the students argued that the support services had a negative impact on her problem solving abilities as it made her life difficult. She commented:

*They only made my life harder. They interfered in my life where they shouldn't have. (VI-9)*

#### **7.2.1.2 Students with Vision impairment: Influence of Support Services on their Family Lives**

When students with vision impairment were asked about the influence of the support on their family lives, eleven out of fourteen students confirmed that the support services had no impact on their family lives. Two of these eleven students claimed that the



support in fact had a negative impact on their family lives in the form of creating misunderstandings and detachments amongst family members:

*The support caused problems between my mother and me as the support teachers told my mother things that were not supposed to about my personal life. (VI-9)*

*I moved away from my country home to receive more adequate support for my senior high school years creating distance among family members. (VI-5)*

Two of the students with vision impairment, however, perceived that the support did play a positive role in their family relationships as it taught them better conflict resolution strategies to solve arguments between themselves and their family members:

*Yes, because it did help me to become better by staying out of conflict. They taught me how to stop myself in becoming angry at things I shouldn't have. They also taught me better strategies how I can solve any arguments between me and my family members. (VI-1)*

*Yes, the support provided some good techniques to influence my family by mediating arguments between family members. (VI-10)*

Another believed that the support from the orientation and mobility instructor helped him to navigate his area with his family members:

*Probably, yes, because the mobility instructors helped me to get around my area with my family. (VI-2)*

### **7.2.1.3 Students with Vision impairment: Influence of Support Services on their Social Lives**

When students with vision impairment were asked about the influence of the support on their social lives, ten of the students believed that the support improved their social life. The students' comments included helping to interact and engage in conversation, make eye contact, gain confidence, use verbal and non-verbal cues appropriately, maintain proper gestures and body language. Students with vision impairment commented that:

*The support taught me how to interact and engage in conversation and how I can interact having eye contact and how to come in the conversation at the right time. (VI-1)*

*I think it is gone great, trying to talk to different kinds of people out there. (VI-4)*

*The support teacher helped me to gain confidence in myself and converse well with my peers. (VI-11)*

*Yes, gain confidence in myself and talk better with people. (VI-14)*

*The support helped me to have the right gestures, body language in my interactions with others. (VI-10)*

*The support has taught me the non verbal cues that are necessary in a social interaction. (VI-13)*

*Without the support I wouldn't have had materials in an accessible format and therefore wouldn't have been able to participate in school and subsequently social activity. (VI-5)*

One of the students interestingly pointed out that support in the form of orientation and mobility helped him to move around and locate streets, thus assisting him to broaden his horizons and interact with more people:

*The orientation and mobility support helped me to navigate the streets. That helped me to interact better with people. (VI-3)*

Another believed that the support teachers used the school effectively as an excellent platform to meet and interact with other students:

*Yes, by organizing meeting other students from the school. (VI-12)*

However, three of the students claimed that the support services had no influence on their social lives and one perceived a negative influence. The evidence of this is demonstrated in the following excerpts from four student interviews:

*The support made my schooling harder and impacted on all of my high school friendships and relationships in a negative way. (VI-9)*

*The support did not help my social life. I feel my sighted peers should have been more educated about my visual condition and that would have made them more understanding towards me. (VI-6)*

*I never wanted to avail the support services as I didn't want to show people that I am given extra help. (VI-7)*

*No influence. (VI-8)*

#### **7.2.1.4 Students with Vision impairment: Influence of Support Services on their Independence and Ability to Study and Work Better**

When students with vision impairment were asked about the influence of the support on their abilities to study and work independently, eleven out of fourteen students with vision impairment reported that the support they received assisted them to be independent and they were able to work better. It helped them to be more confident and organized in relation to school work. Some felt that the modern day technologies in the form of zooming or magnifying the computer screen (Screen Magnification Software), the magnifiers, and the Jaws speech software assisted them to meet their day-to-day demands and challenges in life. These claims of students are reflected in the following quotes:

*The support has helped me to become independent by having confidence in myself, thinking before acting and always showing a smile on my face. (VI-4)*

*Yes, because of the enlarged print, magnifiers. (VI-12)*

*Yes, I use an electronic magnifier to read things and that is helpful. (VI-2)*

*The support has helped me to be independent as I do not have to struggle to read papers. (VI-10)*

*The latest and new technology e.g. zooming or magnifying the computer screen has helped me to be more independent and work better. (VI-13)*

*The adapted technology has been particularly useful. I use an electronic magnifier to read things and it has been very helpful. (VI-2)*

One of the students further claimed that the support helped her to organize and plan her study materials, set up study schedules and execute time management skills in an effective manner. The following interview response confirms this:

*Yes, they did because they provide me with the material and they taught me how to organize the material. They taught me how to plan my study skills, with time management and organizational skills. (VI-1)*

In response to the influence of the support services on students' abilities to study and work independently, two of the students responded that the support services had no influence while one of the students commented that the support had a negative influence and restricted her independent study and work ability. The negative response of this student is demonstrated in the following quote:

*No, I was independent before I received the support. The support teachers smothered me and this had a negative influence on my study and work abilities. (VI-9)*

Overall, the majority of the students with vision impairment agreed that the support services that they received during their school years had a positive impact on their academic lives. Therefore, based on the views of the students with vision impairment, it can be concluded that the support services were generally of value and had a positive influence on their problem solving skills, academic and social lives, and to a lesser degree on their family lives. Of particular note, it emerged from the interviews with students with vision impairment that some students did not wish to avail themselves of these support services in the presence of their sighted peers as it simply made them feel awkward, different and dependent. Therefore, schools need to consider how to offer these support services to students in a much more inclusive and less intrusive manner.

## **7.2.2 Parents of Students with Vision impairment: Influence of Support Services**

The parents of students with vision impairment were questioned whether the support services influenced their children's problem solving skills, family life, social competence and independent study and work abilities.

### **7.2.2.1 Parents of Students with Vision impairment: Influence of Support Services on their Children's Problem Solving Skills**

When parents were asked as to whether the support services in school helped their children to tackle problems, two out of five parents claimed that the support services did help their children with vision impairment to solve problems to a small degree. The views of these two parents are reflected in the following quotes:

*Yes, sometimes in the form of availing these services like access to softwares for students with VI has helped her to solve her problems. (P-a)*

*Yes, but not always. By seeking help from the school Counsellor she can get her problems solved sometimes. (P-b)*

Another two parents established that the support services did not have any positive influence on their children's problem solving abilities, and one of them asserted that the support services actually created more problems in her child's life as her son with vision impairment was too embarrassed to avail the services in the presence of his peers:

*Rather I feel that the support services sometimes have even worsened his problems because he is so embarrassed to avail these services in front of his peers. It has only added to his worries. (P-d)*

One of the parents, on the contrary, believed that the support teacher assisted her daughter with vision impairment to acquire skills to get her day-to-day problems solved:

*The support teacher helps her to solve her problems arising daily. (P-e)*

#### **7.2.2.2 Parents of Students with Vision impairment: Influence of Support Services on their Children's Family Lives**

When parents were asked about the influence of the support on their children's family lives, three of them reported that the support had some useful effects on their children's family lives. Parents felt secured that their child was taken care of in school and that made parent child relationships peaceful:

*Yes, it has caused me to worry less as I know that my child is being taken care of by the support services. (P-a)*

*Sometime I feel secure thinking that my child is looked after. (P-c)*

*Yes, made us worry less about her ability to cope with mainstream education. (P-e)*

However, two other parents confirmed that the support services did not have any positive influence on their children's family lives.

### **7.2.2.3 Parents of Students with Vision impairment: Influence of Support Services on their Children's Social Lives**

When parents were asked about the influence of the support services on their children's social lives, three of them commented that the support had some useful effects on their children's social lives in a manner that the children were taught verbal and non verbal cues, appropriate gestures and body language, how to make eye contact in a group situation and to interact positively with their sighted peers in the mainstream. Some of the opinions of parents on their children's social lives are represented below:

*The support has an impact on her social life only to the extent of not making her feel incompetent, also keeping her stress levels down and teaching her verbal and non verbal cues. (P-e)*

*Maybe sometimes the support services have taught her the non verbal communication cues but a lot more needs to be done to help her to interact more with her peers. (P-a)*

*Yes, sometimes because by using the support services, he is able to go to the mainstream. The support teacher has taught my child the subtleties of body language, how to make appropriate eye contact in a conversation and how to maintain the right kind of gestures when talking to people in a group. The support teachers through role plays have demonstrated appropriate social behaviours. (P-c)*

However, while one of the parents completely denied any positive influence of the support on her child's social life, another argued that the support services were playing negatively in her child's social life. She confirmed that instead of having a positive impact, the support services had a negative impact, especially on the child's social life because the child was shy and embarrassed to be asked about the services in the

presence of his peers. This made the child unsocial and hesitant to interact with his peers and his social life suffered in an adverse way:

*I feel that the support services have made him more unsocial and embarrassed and awkward in front of his friends. (P-d)*

#### **7.2.2.4 Parents of Students with Vision impairment: Influence of Support Services on their Children's Independence and Abilities to Study and Work Better**

When parents were asked as to whether the support services helped their children with vision impairment to study and work better, all five parents agreed to it. They believed that the support in the provision of large print handouts, magnifiers, screen magnification and jaws speech softwares to students with vision impairment made new learning more accessible to students. The following quotations reflect their views:

*Yes, definitely the support services have helped my daughter in her learning. Use of the magnifier and enlarged print facilities has made learning for her easier and convenient. (P-a)*

*Yes, the support services in the form of speech softwares and screen magnification devices have helped her so much in her day to day tasks. (P-b)*

*Yes, the support services have helped him to learn things quicker without which things would have been so difficult for him. But I still feel these services should be used more extensively at schools to ensure that optimum utilization of these is being made. (P-c)*

*Yes, the support services have helped my son to learn easily and quickly, study and work better. (P-d)*

*The support allows her to work to the best of her ability. (P-e)*

However, one of the parents claimed that much still needs to be done by teachers and special educators in the academic arena. The academic dimension was the only area where all parents confirmed that the support did play a positive role.

#### **7.2.3 Teachers of Students with Vision impairment: Influence of Support Services**

The teachers of students with vision impairment were questioned whether the support services influenced their student's problem solving skills, family life, social competence and independent study and work abilities.

### **7.2.3.1 Teachers of Students with Vision impairment: Influence of Support Services on their Students' Problem Solving Skills**

When teachers were asked about the influence of the support services on their students' abilities to solve problems, all four teachers established that the support services contributed positively to this aspect. Two of the four teachers indicated that the support services offered one-on-one help to students with vision impairment to solve their problems. According to three teachers, the support in the form of adapted technologies and devices like CCTV made the lives of students with vision impairment much easier. Another teacher indicated that resources were prepared in the form of print alternatives and they were on loan to students with vision impairment around the State. She established that schools advised students when buying technology. All the teachers believed that there were a whole range of visual aids, adapted technologies as well as School Service Officers (SSO)'s who provided support to students with vision impairment. These collective views of teachers are demonstrated in the following quotes:

*Yes, definitely because students with VI receive help on a one on one basis from their support teachers which helps them to solve their problems. (T-d)*

*Yes, the support has helped students with VI to tackle problems to some extent on their own as support teachers work on a one on one basis for them, adapted technologies and supportive devices have definitely made their life easier than what it could have been without these. (T-c)*

*Definitely, Umm, with the older students I find they know what they need in the way of their vision aids. So, if they have a test or some work to do, they will actually - can't say "can I go back to use a CCTV?", because that's what they find it easiest to use. They negotiate with their teacher to always use a laptop. (T-a)*



Two of the teachers also reported that the non-governmental agencies that provide resource, technology and services to students with vision impairment in the form of paediatric low vision clinics in the Royal Society for the Blind have been found to be extremely useful:

*They are several support services, resource and technology offered to them by RSB which is also quite handy in terms of solving their varied problems. (T-d)*

*Students can go with teachers and parents to the paediatric low vision clinics in the RSB, assess their functional vision and determine how that can impact on the school situation. (T-b)*

### **7.2.3.2 Teachers of Students with Vision impairment: Influence of Support Services on their Students' Family Lives**

When teachers were asked about the influence of the support on students' family lives, three out of the four teachers (T-a, T-b, T-c) indicated that the support did play a positive role in the family lives of students with vision impairment. These teachers reported that the support not only helped students with vision impairment to achieve commensurate with other siblings, they claimed they learnt skills that enabled them to be more independent at home. According to one of the teachers, there were some families who were over protective of the child with vision impairment while there were other families who simply failed to understand the visual needs of the child with vision impairment. She believed that the support provided much needed information to families. She further established that as part of the support service, the support teachers also conducted interviews with parents and were able to share and extend a different perspective altogether. She reported:

*Some families tend to be more protective or do not understand the students with vision impairment. So the support provides a lot of information to families. The support teachers also have interviews with parents and are able to share a different viewpoint. (T-b)*

There were two other teachers who emphasized that since the support assisted students with vision impairment to complete their tasks and homework in school, thus it left them with more quality time at home to spend with parents:

*Yes, in some way I feel that the support has indirectly influenced students with VI's family life since they are well guided at school, they do not take homework home and that leaves them with some quality time to spend with parents. (T-c)*

*Also with vision impaired students, if they go home, not exactly knowing what they have to do, that again puts pressure on the parents and the student as well. So, that can be quite unsettling. (T-a)*

One of the teachers; however, indicated that the support services did not cast any influence on her students' family life:

*I don't think that the support arrangements as such have had any impact on the student's family life. (T-d)*

### **7.2.3.3 Teachers of Students with Vision impairment: Influence of Support Services on their Students' Social Lives**

When teachers were asked about the influence of the support on students' social lives, all four teachers agreed that the support included social skills and self advocacy training which had enormous benefits on the social lives of students with vision impairment. These teachers believed that the support assisted students to pick up those behavioural, facial and communication cues that were considered important to establish social links which otherwise would have gone unnoticed with the limited vision these students possessed. Three teachers reported:

*I think it can help with their confidence. Umm, and I guess, you are talking like our support with them. I think that our support means that we can also see an overall picture, umm, of what's happening in the classroom or out in the yards, also we can make little suggestions of may be some behaviours not appropriate - may be some behaviour you need to look at a bit more carefully. So, we can sort of gently guide them, recognizing things that they don't see visually and some of that is the behaviour and body language cues and what they come out and say when they don't actually know who's around. Umm, so, it can be a social thing there that we need to support them. I*

*don't think they pick up on that and will often ask what we should do in these situations which though can be a proper type thing between teachers and students. (T-a)*

*Well, the support have taught VI students how and when to behave appropriately in public. (T-c)*

*Yes, I feel in some way the support has a positive influence on VI students' social competence because we teach them overtly proper social behaviour and communication cues. This has particularly been helpful to blind students as we provide them training as how to behave in public. (T-d)*

However, two of the teachers felt that in spite of providing the best kind of support to establish social skills, students with vision impairment failed to establish proper social networks and connections with their sighted peers. According to them, the reason for failure laid not with the support services itself, but with the attitudes of other sighted peers towards students with vision impairment. They expressed their views that sighted peers should be provided with more information about vision impairment and training in how to include students with vision impairment in all classroom activities:

*However, in spite of our efforts, I have found our VI students not able to establish the best kind of social networks with their peers. I feel more than the students with VI, a lot depends on their sighted peers. Sometimes, the sighted peers do not include them in interactions and this becomes a reason for their poor social skills. So there is nothing wrong with the support provided to VI students. Sighted students should also be provided with some training as how to deal with VI students in class and how to make the classroom more inclusive for them. (T-d)*

*However, in spite of the support the main thing that is important is that sighted students should receive training to include VI students in their day to day activities. (T-c)*

#### **7.2.3.4 Teachers of Students with Vision impairment: Influence of Support Services on their Students' Independence and Ability to Study and Work Better**

When teachers were asked about the influence of the support services on students' abilities to study and work independently, all four teachers unanimously agreed that the focus of support for students with vision impairment has been on their learning through assistive technologies. According to three teachers, the support not only helped students with vision impairment to achieve the DECD curriculum but also provided assistance to cover the expanded core curriculum. The expanded core curriculum included orientation and mobility training, training in independent living skills which included eating, cooking, food preparation, personal care and other organizational skills which made students with vision impairment independent in their day to day activities. One of the teachers reported that it was often a challenge for support teachers to fit the expanded core curriculum into the general secondary school. Three teachers commented:

*The support not only helps students to achieve the DECD curriculum but the support also provides time to cover the expanded core curriculum. It is always a challenge to fit the expanded core curriculum in the general secondary school. (T-b)*

*Definitely the support arrangements have helped the students to be more independent as we provide them with adapted technologies, one on one support and training in life skills and mobility and orientation which has immensely helped students with VI to be more independent in life. (T-c)*

*Yes, I feel that training in independent living skills have helped VI students to be more independent and work better. (T-d)*

However, the only concern raised by one of the teachers was that sometimes the support provided made students with vision impairment too dependent on it:

*Sometimes I feel that the support can make some students heavily reliant on it. (T-d)*

#### **7.2.4 Overview of Responses on Vision Impairment**

In summary, the majority of the students with vision impairment found that the support services were useful in developing their problem solving skills. Ten of the students believed that the support assisted them in their social lives by helping them to acquire verbal and non-verbal communication cues, appropriate body language, eye contact and gestures overtly. Eleven of the students with vision impairment confirmed that the support assisted them to achieve in the academic arena. Three of the students claimed that the support had a positive impact on their family relationships. However, three of the students also claimed that the support had absolutely no use in their overall lives. While all parents articulated their views on lines that the support services offered in schools for students with vision impairment positively impacted on students' academic lives, three among them believed that the support had some positive influence on students' problem solving skills, family and social lives as well. According to all four teachers, the support services helped students with vision impairment to be more independent and contributed positively to students' problem solving skills. Three of the teachers perceived some positive influence of the support on students' family relationships. All four teachers recognized that the support included social skills and self advocacy training, thus building on the students' social lives. All the teachers argued that the support with its focus on learning assisted students with vision impairment in their academic lives. Three of the teachers also established that the support helped students with vision impairment to cover different aspects of the expanded core curriculum, thus contributing to the all round development of these students.

## **7.2.5 Students with Intellectual disability: Influence of Support Services**

The student participants with intellectual disability were questioned whether the support services influenced their problem solving skills, family life, social competence and independent study and work abilities.

### **7.2.5.1 Students with Intellectual disability: Influence of Support Services on their Problem Solving Skills**

When students with intellectual disability were asked about the influence of the support services on their problem solving skills, four of the students reported a positive influence. Two of the students believed that by discussing their problems frankly with the support teacher, they could get most of them solved:

*Yes, by telling the teacher and the SSO my problems and they all fix it. (ID-5)*

*Whenever I am in a problem, I don't let others read my mind but I tell my support teacher that I want to talk privately. (ID-1)*

Another claimed that the support teacher often assisted her by going over tasks again and again and helping her to take one step at a time. In this way, she could easily get her real life problems solved:

*Yes, my support teacher helps me by doing my work and helping me through what I have to do and thus solve my life problems. (ID-12)*

One of the students further pointed out that the support teacher trained students with intellectual disability to know their condition better and devised strategies to accept and cope with their disabling condition. This strategy was often useful for this student to solve her problems:

*The support teacher helps us to know our state better and then devise strategies to manage the problems arising from the state. (ID-6)*

One of the students completely denied any positive influence of the support services on her problem solving abilities and four other students were not sure whether the support services assisted them in their problem solving abilities or not.

#### **7.2.5.2 Students with Intellectual disability: Influence of Support Services on their Family Lives**

When students with intellectual disability were asked about the influence of the support services on their family lives, five of the students agreed that the support services had no impact on their family life. The interview responses below confirm that the support had no impact on the family relationships of students with intellectual disability:

*The support had no impact on my family life. (ID-11)*

*No impact on my family life. (ID-5)*

On the other hand, while one of the students believed that the support services had a positive influence on her family relationships there were yet another three students with intellectual disability who were quite oblivious and ignorant of the support services that were afforded in schools and could not provide any instances of a positive outcome that the support had on their family relationships. They looked perplexed and seemed not to remember any positive effects of the support services on their family lives. One of them commented:

*I am not sure how the support services at school helped me in my family relationships. (ID-4)*

Another reported that he did not find anything useful in the support services and argued that services for students with intellectual disability should have been wider and more extensive, as it was this cohort among the vast array of disability that were most neglected:

*No use of the support currently, it should be broader and wider, we are currently the most neglected group. (ID-11)*

### **7.2.5.3 Students with Intellectual disability: Influence of Support Services on their Social Lives**

When students with intellectual disability were asked about the influence of the support services on their social lives, four of the students identified that it did have a positive impact. One of the students reported that the support teacher always made an effort to socialize students with intellectual disability and integrate them with non-disabled peers in the mainstream.

*My support teacher has helped me to go to the mainstream and make friends. (ID-2)*

Another two students believed that the support teacher had often devised strategies for students with intellectual disability to help them interact better:

*My support teacher has helped me to talk to people. (ID-5)*

*Yes, my support teacher have told me that don't let anything get into your way and try make new and better friends. (ID-1)*

There were an additional three students with intellectual disability that completely denied any positive influence of the support on their social lives. One among the three believed that there was a barrier between students with intellectual disability and their non-disabled peers, which in spite of the positive efforts rendered by the support teachers could not be reconciled. He commented:

*There is a barrier between students with ID and without ID which support teachers could not mediate. (ID-11)*

Two other students with intellectual disability were not quite certain whether the support services had any influence on their social lives.



#### **7.2.5.4 Students with Intellectual disability: Influence of Support Services on their Independence and Ability to Study and Work Better**

When students with intellectual disability were asked about the influence of the support services on their abilities to study and work independently, eight students reported that the support contributed positively for them to study and learn schoolwork. One among the eight students believed that the support services assisted her to be less anxious and helped her to know the routine better:

*Yes, less anxious about things and helping me to know the routine. (ID-6)*

Three other students argued that the support teacher helped them to practise tasks again and again and provided positive encouragement and reinforcement which made them more confident in school work:

*Yes, by doing stuff more by me, by helping me learn more and helping me to be more confident in school. (ID-13)*

*Yes, by practicing my tasks and giving me more praise. (ID-4)*

*Yes, they have also told me that I can do better and I can also be more confident. (ID-1)*

One of the students also commented that the support services prepared her to be more independent in two settings; school and home:

*Yes, like sometimes I work independently when I am at work or at home. (ID-5)*

#### **7.2.6 Parents of Students with Intellectual disability: Influence of Support Services**

The parents of students with intellectual disability were questioned whether the support services influenced their children's problem solving skills, family life, social competence and independent study and work abilities.

### **7.2.6.1 Parents of Students with Intellectual disability: Influence of Support Services on their Children's Problem Solving Skills**

When parents were asked about the influence of the support services on their children's abilities to solve problems, two of the parents indicated that the support services sometimes helped their children to solve their problems. One of the parents believed that by confiding in the support teacher, her daughter could get most of her problems solved:

*Yes, to some extent as the support teachers helps her in many ways, she trusts in her support teacher which has allowed her solve problems in a better way. (P-g)*

Another believed that the support teacher assisted by providing extra time and explaining things to the students at the ground level. These services were found to be useful in assisting them to solve problems:

*Yes, sometimes when the teacher has taken more time to deal and explain things at a root level to my son. (P-i)*

However, instances were cited by an additional three parents who claimed that the support services did not assist students with intellectual disability to solve their problems. They reported in such situations, when no support was available, students with intellectual disability preferred to turn to parents or other considerate peers.

Parents commented:

*I don't think so the support has helped her because when she has a problem she invariably turns to me or to her friends for her solutions. (P-j)*

*She often needs help from me to solve her problems. Schools should help her to be more independent to solve her problems. (P-f)*

*Not that I know of that the support has helped my child to solve problems independently. (P-h)*

### **7.2.6.2 Parents of Students with Intellectual disability: Influence of Support Services on their Children's Family Lives**

When parents were asked about the influence of the support services on their children's family lives, one of them articulated that she felt relieved from time to time thinking that her child was being looked after in school. She commented:

*Yes, to some extent but it makes me feel relieved to think that she is being taken care of at school. (P-f)*

However, the remaining four parents argued that the support services were offered at such sporadic intervals that it seemed not to cast a dominant influence on students' family relationships. These views of parents are evident in the quote below:

*The support services had no impact on my child's family life. (P-g, P-h, P-i, P-j)*

### **7.2.6.3 Parents of Students with Intellectual disability: Influence of Support Services on their Children's Social Lives**

When parents were asked about the influence of the support services on their children's social lives, one of them was of the view that the support teacher made an effort to integrate students with intellectual disability into the mainstream:

*His support teachers have been trying to make him more social and integrate him in the mainstream. (P-f)*

However, the remaining four parents believed that the efforts of the support teachers and services were so irregular and intermittent that they could not cast any dominant impact on the social lives of students with intellectual disability. Parents reported:

*No, it's not doing any good to her social life. (P-g)*

*Maybe sometimes the teacher might help him to be more social and in most occasions I would say it has not helped my son. (P-h)*

*Generally, I would say the support services offered at school has no impact on my daughter's social life. (P-j)*

One of the four parents commented that although the support services assisted her daughter to develop some forms of non-verbal communication but a lot more needed to be done by the support and special education teachers and schools in this area:

*Maybe sometimes the support services have taught her the non verbal communication but much more needs to be executed by his teachers, special educators and the school Counsellors. I feel there is a big gap between students with ID and students without an ID. (P-i)*

One of the parents pointed out that students with intellectual disability had often been the subject of bullying by other students in the mainstream, which had escaped the notice and attention of support teachers:

*There have been so many occasions when she and other students with ID had to experience bullying in class by mainstream students and support teachers did not notice it. (P-j)*

#### **7.2.6.4 Parents of Students with Intellectual disability: Influence of Support Services on their Children's Independence and Ability to Study and Work Better**

When parents were asked about the influence of the support services on their children's abilities to study and work independently, all parents except two reported that the support services did not have a substantial influence on the student's abilities to be independent because most students relied heavily on others to get their work and study problems sorted out. Only on rare occasions, students with intellectual disability received help from the support and special education teachers to get their tasks completed. Parents said:

*I don't think that the support has helped her to be independent because she is quite dependent on me. She does not get that much help from her teachers to work independently and get things sorted out on her own. (P-g)*

*No, I don't think so the support has made my son independent to study. (P-h)*

*I will say that the support services are not doing any good to my son. (P-i)*

The views of the two parents who believed that the support services had some partial positive influence on the academic lives of students with intellectual disability are represented below:

*Yeah, on rare occasions it has helped my daughter like when she needs help to complete her task she has received that help. But there have been other occasions when help was required and it went missing. (P-j)*

*Yes, in some ways because it has assisted her in her learning without which things could have been quite difficult for her. (P-f)*

Therefore, it can be concluded that the majority of the parents reported that the support services provided in schools for students with intellectual disability failed to cast any dominant influence on these students' problem solving skills, family and social lives. Though the support was found to reap some partial benefits on the academic lives of students with intellectual disability (confirmed by two parents' interview responses), it was not substantiated by the majority of parents.

### **7.2.7 Teachers of Students with Intellectual disability: Influence of Support Services**

The teachers of students with intellectual disability were questioned whether the support services influenced their student's problem solving skills, family life, social competence and independent study and work abilities.

#### **7.2.7.1 Teachers of Students with Intellectual disability: Influence of Support Services on their Students' Problem Solving Abilities**

When teachers were asked about the influence of the support services on students' abilities to solve problems, all four teachers held the view that the support services offered at schools for students with intellectual disability equipped these students to tackle their problems in a better way. These teachers commented that as part of the

support, students with intellectual disability were provided with different problem scenarios in class, lessons were structured around those problems and support teachers assisted students to solve those problems taking one step at a time. These teachers believed that the adoption of these techniques helped students with intellectual disability to handle real life problems well. The following views of teachers confirm this:

*Yes, the support has helped students with ID to tackle problems to some extent on their own as we involve them in real life case examples, provide them with a problem situation and help them to devise strategies to get things working out for them. (T-f)*

*Yes, I feel that the support arrangements have helped students to solve their problems independently because we constantly strive to structure their tasks around real life problems and provide them clues to strategies to get out of it. (T-g)*

*To some extent I would say yes support services have helped students with ID to solve their problems because we provide them real life problems in class and then teach them skills to solve it. (T-h)*

*We, in class, we do examples and we probe play and we set up different scenarios like, say what would you do in this situation and I think for some of them like it a bit. (T-e)*

However, one of the teachers expressed her concerns that it was not possible to cover all types of real life problems in class and so she felt that the support services could not equip students with total competence to combat all types of problems in life:

*But I would say that we cannot cover every type of real life problems in class and there are situations when students with ID in real life problems don't know what to do and whom to turn to. (T-h)*

#### **7.2.7.2 Teachers of Students with Intellectual disability: Influence of Support Services on their Students' Family Lives**

When teachers were asked about the influence of the support services on the family lives of students with intellectual disability, all four teachers agreed that the support services offered at schools had no impact on these students' family lives (T-e, T-f, T-g, and T-h).

### **7.2.7.3 Teachers of Students with Intellectual disability: Influence of Support Services on their Students' Social Lives**

When teachers were asked about their perceptions of the influence of the support services on students' social lives, two out of four teachers believed that the support had a positive influence on the social lives of students with intellectual disability. One of the teachers claimed that often students with intellectual disability were trained to develop appropriate social behaviours through role play situations in class:

*The role play situation, we try to teach them appropriate social behaviour overtly and that helps. (T-e)*

Another teacher believed that the support services integrated students with intellectual disability and their non disabled peers by pairing them in group and pair activities to facilitate positive interactions. She reported:

*The support has helped the students with ID in their social life by intermingling them quite often with their peers in group and pair activities. (T-f)*

However, one of the teachers argued that in spite of integrating students with and without intellectual disability in various classroom activities, students with intellectual disability did not have the requisite social bonds and connections with their non disabled peers. The following quote substantiates this argument put forward by the teacher:

*To be honest, I don't think so support services have helped students with ID in their social lives as I have seen students with ID remain isolated and aloof from mainstream peers due to their lack of social skills. Moreover, they prefer to remain within their own secluded private groups. (T-g)*

On a positive note, one of the teachers interestingly found that where these social networks were absent in the actual classrooms it was present in the cyber world. Students with intellectual disability were found to have strong network connections with many friends online through Face book and Twitter as opposed to the mainstream classrooms:

*Though we try to integrate the students with ID with the mainstream peers, but however in actual classroom situation it is not that easy to achieve this. What I have observed is that some students with ID have a good social network online on Face book and Twitter; they have a wide range of quality friends there but not in the classroom. (T-h)*

Therefore, failure to create the ideal inclusive environment in the classrooms, according to the same teacher, can be attributed to a number of factors like lack of trained staff and resources in schools and lack of adequate funding from the government directed towards students with intellectual disability:

*I think to achieve the ideal situation in classrooms, we need more staff and more funding from the government towards students with special needs, I mean students with ID. (T-h)*

#### **7.2.7.4 Teachers of Students with Intellectual disability: Influence of Support Services on their Students' Independence and Ability to Study and Work Better**

When teachers were asked about the influence of the support services on student's abilities to study and work well, all four teachers indicated that the support services played a vital role in helping students with intellectual disability in their school work. One of the teachers claimed that as part of the support, students are given real life case problems related to their study and work and practical solutions are provided around those areas. This made students more competent and confident in school work. The teacher commented:

*Definitely the support arrangements have helped the students to be more independent to study and work as we provide them with real life case examples around their study and work areas which made them more competent and independent on tasks. (T-f)*

Three other teachers emphasized the importance of explicit lessons in life skills for students with intellectual disability. Teachers reported that these training exercises provided the requisite skills and expertise to students with intellectual disability to lead fairly independent lives in school, work and home. The following quotes illustrate the collective views held by the three teachers:



*Oh, yes the support has helped students with ID to be more independent as we tend to emphasize a lot on daily living skills and how to live and work independently. We teach them how to cook, warm their food in the microwave and how to ride the bus and these have helped them to develop independent living skills. (T-g)*

*Well, I feel that the support arrangements have to some extent made the lives of students with ID more independent by imbibing independent and daily living skills. (T-h)*

*We have these explicit lessons in those life skills. (T-e)*

One among the four teachers also recognized the use of adaptive resources and technology in the academic lives of these students:

*Many adaptive resources and technology has assisted students with ID to study more independently which the support teachers teach students how to use it most effectively. (T-h)*

### **7.2.8 Overview of Responses on Intellectual disability**

In summary, four of the students with intellectual disability found that the support services helped them to solve their problems independently and interact well with their non-disabled peers. The majority of the students with intellectual disability denied any positive influence of the support services on their family lives. Eight out of nine students with intellectual disability found the support services to contribute positively in some way or the other in their academic lives. The majority of the parents failed to foresee any positive influence of the support on their children's problem solving skills, family, social and academic lives. All of the teachers claimed that they provided students with intellectual disability with different problem scenarios in class and structured their lessons around it, thus developing the problem solving and academic abilities in students. This helped students to some extent to tackle their own problems independently. According to teachers, the support also provided explicit training in life skills and assisted students to lead fairly independent lives. Though the support tried to strengthen the social lives of the students with intellectual disability, teachers noted that

often these students remained secluded, isolated and lonely in mainstream classrooms. According to all of the teachers, the support had no impact on the family lives of the students with intellectual disability. These multi-faceted views on the influence of the support services on students' test anxiety, are further explored in the next section.

### **7.3 Influence of the Support Services on Students' Test Anxiety**

Discussion of the final theme focuses on the influence of the support services on students' test anxiety. This section deliberates on whether the support services offered in schools for students with vision impairment and those with intellectual disability assisted these students to take tests/examinations more confidently and submit assignments in a more organized and timely manner. To investigate the influence of the support services on students' test anxiety, a similar question was asked to the three groups of respondents- students, their parents and teachers in each of the two disability areas- vision impairment and/ or intellectual disability. The questions were as follows:

- The students:

“Have the support services helped you to take a test or assignment better? If so, how?”

- The parents:

“Have the support services helped your child to take a test or assignment better? If so, how?”

- The teachers:

“Have the support services helped your students with vision impairment and those with intellectual disability to take a test or assignment better? If so, how?”

Table 7.2 summarizes the range of responses from the three groups of respondents in each of the two disability groups.

**Table 7.2 Overview of major response patterns from the interviews on support services and students' test anxiety**

Participants →	VI (N=14)	Parents of VI (N=5)	Teachers of VI (N=4)	ID (N=9)	Parents of ID (N=5)	Teachers of ID (N=4)	Total (N=41)
Response Patterns ↓							
1. Support services helped students to take a test/ assignment better	VI-1, VI-2, VI-3, VI-4, VI-6, VI-10, VI-12, VI-13, VI-14	P-a, P-d, P-e	T-a, T-b, T-c, T-d	ID-1, ID-2, ID-4, ID-5		T-f	21
2. Support services did not benefit students' abilities to take a test/ assignment	VI-7, VI-8, VI-9			ID-11, ID-13	P-g, P-h, P-j		8
3. Support services partially helped students in taking a test/ assignment	VI-5, VI-11	P-b, P-c		ID-6	P-f, P-i	T-e, T-g, T-h	10
4. Students were unsure of the influence of the support services on their test taking abilities				ID-3, ID-12			2
Total comments	14	5	4	9	5	4	41

VI = Students with vision impairment; ID = Students with intellectual disability; P = Parents; T = Teachers

### 7.3.1 Students with Vision impairment

When students were asked whether the support services helped them to take a test better, nine of the students with vision impairment agreed that the support services that they received at school helped them to take an exam/test better. The support services in the form of extra time, enlarged print, scribes or audio recorder needed during exams made students with vision impairment feel more confident and competent. Some of the selected students' quotes are presented below:

*The support teacher taught me how to manage my time when it comes to test because I only have a certain amount of time. They taught me how much time I should spend on certain questions. (VI-1)*

*The support teacher helps me to get prepared. E.g. they help me during my reviews, preparing strategies before I take a test. (VI-2)*

*Support teachers read out questions for me and provide me extra time in a test. (VI-12)*

*The support services have helped me to take an exam or test better. I feel confident and I am willing to study much further. (VI-4)*

However, three of the students with vision impairment did not believe the support services prepared them well for any examinations. Comments from two of these students are quoted below:

*The support was never helpful to take an exam. The support teachers hovered and interrupted me throughout most tests and exams. (VI-9)*

*I never wanted to avail any support services as I didn't want to show people that I am given extra help. (VI-7)*

Two other students claimed that though the support services were helpful, there were not enough services to meet all kinds of vision needs. One of these two students stated:

*Students with vision impairment can write an exam with extra 1/3<sup>rd</sup> of total time. Students with vision impairment can also use a tape recorder to record their answers. Alternatively, students with vision impairment can also use a scribe during tests as well. This is certainly helpful but not to the highest degree. If I am telling my answers to*

*a scribe I end up taking more time than what I could have done if I wrote the test myself. I sometimes feel that the extra time provided for students with vision impairment during a test is not enough and the length of time should be increased. (VI-11)*

The general response obtained from students with vision impairment was that the support services definitely proved beneficial and assisted them to take a test or exam more confidently and competently. However, two students believed that specialist vision support services should provide more comprehensive support to students with vision impairment to better assist them in test situations.

### **7.3.2 Parents of Students with Vision impairment**

When parents were asked whether the support services in schools helped their children to take a test better, three of the parents agreed that the support services had a positive influence on their children's abilities to take a test or exam. These parents claimed that the use of magnifiers, large print, computer software and the provision of extra time assisted these students to be more competent in testing situations. Three parents reported:

*The supports in the form of large print and magnifiers have helped my daughter to take a test at par with her friends. (P-a)*

*Yes, I feel that the impact of the support services have had a positive effect mainly in the academic area. My son can take an exam better due to large print, use of magnifiers and sometimes extra time granted to him. So, offcourse I will agree that the support in school has helped him to take a test or exam in a better way. (P-d)*

*Yes, the support has helped my daughter to take a test or exam better by allowing her extra 10 minutes per exam, allowing a rest break if needed which reduces eye strain and allowing her to use laptop for exams to type which helps her see what she is writing as it gives good contrast. (P-e)*

Two other parents reported that the support services had only limited influence on their children's abilities to take a test better:

*Yes, in some ways but more needs to be done by school teachers. (P-b)*

*Yes, I feel to some extent because my son knows that there are support services available for him and that makes him feel better. (P-c)*

One of the two parents believed that support teachers should assist students with vision impairment to practise some relaxation and meditation exercises before a testing situation:

*Teachers should help them by teaching relaxation and meditation techniques before an exam. (P-b)*

### **7.3.3 Teachers of Students with Vision impairment**

When teachers were asked whether the support services in schools helped their students with vision impairment to take a test better, all four teachers perceived a positive influence. Teachers commented that there was a focus on secondary schools on passing tests and exams and so a major part of the support teacher's work was assisting students with vision impairment to meet timelines and ensuring that their investigation covered all aspects of the topic. These teachers stated that they provided explicit teaching and scaffolding for students with vision impairment to meet all of their expectations and facilitate positive learning outcomes as specified in their students' personalized Negotiated Education Plans. These teachers further believed that by providing students with vision impairment with extra time, a scribe, adapted technologies, formatted test materials and vision aids, they reduced students' stress and anxiety levels partially during examinations. Three teachers' views have been captured in the following excerpts:

*I think they are getting a lot more tests. but I think having the flexibility in having more time and using their vision aids, CCTV, having reduced amount of time helps them to feel that they are being catered for in their exam situation rather than "it's not fair" because, you know, "I can't see as well" that they have recognized that they get either more time or less work so that they are able to umm, cope with that. (T-a)*

*The support services have helped students with VI to take an exam because we provide them extra time during tests and sometimes they may choose to have a scribe for an exam. So VI students know that they are being catered and looked after in an exam which helps them to reduce the stress of tests. (T-c)*

*Definitely, the support has helped VI students to take a test better because we provide the test material in either enlarged or Braille format, we do provide them with all kinds of adapted technologies during an exam which has helped them to reduce the stress to a great deal. (T-d)*

Therefore, teachers agreed that the support services contributed in some way or the other in reducing and managing the anxiety experienced by students with vision impairment before a test or an examination.

### **7.3.4 Overview of Responses on Vision Impairment**

In summary, nine out of fourteen students with vision impairment were of the view that the support services had a positive influence on their test taking abilities. While three of the students with vision impairment outrightly denied any usefulness of the support services in relation to taking a test, two of the students perceived some limited benefits when taking a test. All teachers and the majority of parents also found that the support services contributed positively in some way or other to students' test taking abilities. Teachers further pointed out that the support services helped to reduce the stress and anxiety experienced by students in a testing situation.

### **7.3.5 Students with Intellectual disability**

When students were asked whether the support services helped them to take a test/ assignment better, four of the students with intellectual disability reported that the support services assisted them in a positive way while preparing for an assignment. According to these students, the support services assisted them to learn better, gain a broader and more meaningful understanding of concepts and theories and helped them to acquire greater confidence to work on assignments. One student commented that the

support he received assisted him to perform in subjects like Science, Mathematics and the Arts. The following quotes reflect these students' views:

*The support services helped me with Mathematics, Science and doing Arts. (ID-2)*

*The support helps me in good work and learn better. (ID-4)*

*The support helps me by looking at the questions carefully. (ID-5)*

*My support teachers told me to just concentrate/focus on my work. So they have always given me more confidence about tests. They assured me so as not to get nervous during tests. (ID-1)*

One of the students, however, perceived only partial benefits from the support services:

*Some days are good and some days are bad for me. When there is someone supporting me and telling me what to do, I stay calm. (ID-6)*

Two other students with intellectual disability alleged that there was no relationship between the support services and their ability to take a test or assignment at school. They believed that the support services had no influence on the anxiety they experienced before submitting an assignment. One student stated:

*No use of the support currently and no impact on my anxiety levels as well. (ID-11)*

There were two additional students who remained neutral and unsure when asked about the influence of the support services on their test anxiety.

### **7.3.6 Parents of Students with Intellectual disability**

When parents were asked whether the support services in schools helped their children to take a test/assignment better, three of the parents indicated that the support services had no influence on their children's abilities to take a test or assignment appropriately. According to these parents, students with intellectual disability generally were subject to test anxiety and teachers, counsellors and schools had not taken any particular steps to reduce the students' anxiety levels. These parents argued that students with



intellectual disability went through stressful and worrying situations, especially before submitting an assignment, and schools had not implemented any special measures to reduce the students' stress. The quotes below focus on the parents' negative attitude towards the support services offered in schools:

*No, support services have no impact on her taking an exam and therefore she suffers from anxiety before an exam. Schools have not done much in this regard. (P-g)*

*No, I don't think support arrangements have helped my child in an exam. He gets stressed before submitting assignments (P-h)*

*Schools should have helped and devised strategies for students with ID to face an exam better. I am surprised that schools have not taken an initiative in this respect. (P-j)*

Only two parents believed that the support services partly influenced their children's test taking abilities. One parent said:

*Well, maybe very rarely when the teacher takes out more time for my son. However, I feel teachers should prioritise more resources for students with ID. (P-i)*

The majority of the parents perceived that the support services had no influence in reducing the stress and anxiety experienced by students with intellectual disability before submitting assignments/taking tests.

### **7.3.7 Teachers of Students with Intellectual disability**

When teachers were asked whether the support services provided in schools helped their students to take a test/assignment better, two of the teachers were of the opinion that students with intellectual disability partially benefitted from the support services in terms of submitting assignments claiming that the support staff provided students with constant help on a one on one basis. Students with intellectual disability were also provided with modified computer software and sensory equipment to assist them in their learning, which in the opinion of one teacher made a marked difference in

students' abilities to complete assignments. The opinions of these two teachers are reflected below:

*Yes, to some extent the support has helped students with ID in their performance in an assignment as often we provide them that extra help, specialized resources for students with ID to work effectively and constant support and assistance from staff all year round. (T-h)*

*The support services have helped students with ID to work on assignments and tasks as we have modified computer softwares for them and proper sensory equipments to assist in their learning. (T-f)*

However, two other teachers believed that in spite of the regular efforts rendered by support staff, students with intellectual disability experienced worry, anxiety and lacked confidence before submitting assignments mainly because schools were understaffed in trained specialist teachers who could support students with intellectual disability. These views expressed by the two teachers are represented below:

*In spite of such efforts I have found students with ID experiencing nervousness before taking up on new assignments. I think we are understaffed and resolving this issue could help us to take care of students with ID in a better way. (T-g)*

*Students worried and lacked in confidence before submitting assignments. More staff - yes, more staff and more help is required. (T-e)*

### **7.3.8 Overview of Responses on Intellectual disability**

In summary, while five of the students perceived the benefits derived from the support services in helping them to submit assignments and take tests, two of them found the support services did not assist them to take a test/submit an assignment and another two preferred to remain neutral about the worth of the support services. Three of the parents generally agreed that the support services had no influence on their children's ability to take a test/produce an assignment better, however, two other parents disagreed, stating that the support services had a partial positive influence on their children's test/assignment taking abilities. Two teachers were of the view that the support services

in the form of modified computer software and sensory equipment partially helped students with intellectual disability to work on and submit assignments appropriately. However, two other teachers believed that in spite of the support services delivered to students with intellectual disability, these students still experienced stress, anxiety and worry before taking a test or submitting an assignment in class.

## **7.4 Chapter Summary**

In Chapter 7, interview narratives were grouped and analysed into the last two themes in Stage 2 of the study in relation to the two disability cohorts. This chapter reported the students, their parents' and teachers' perceptions of the influence of the support services offered in schools for students with vision impairment and those with intellectual disability regarding these students' problem solving skills, family, social and academic lives and test anxieties. The students', parents' and teachers' responses were multidimensional, complex and sometimes contradictory in nature. In the next 'Discussion' chapter, the questionnaire data-based findings (from Chapter 5) and the qualitative interview findings (from Chapters 6 and 7) under the similar themes are discussed and interpreted in relation to the literature wherever possible, clarifying what those findings may imply.

# **CHAPTER 8: DISCUSSION**

## **8.1 Introduction**

This chapter discusses the significant and key findings obtained under the themes (identified in Chapters 5, 6 and 7) separately for each of the two disability cohorts. The findings have been supported by or contrasted with previous studies wherever possible. The main derivations and interpretations of the key themes identified in relation to self-concept, test anxiety and support services for students with vision impairment and those with intellectual disability are discussed in the following main sections.

## **8.2 Self-Concept of Students with Vision impairment**

Section 8.2 contains the noteworthy findings that emerged from the questionnaire and interview responses along the different dimensions of self-concept for students with vision impairment.

### **8.2.1 Physical Self-Concept**

The great majority of the students with vision impairment in the sample obtained low physical self-concept scores. However, when using the Welch independent t-tests, there were no significant differences in the physical self-concept in female and male students with vision impairment. This result is not consistent with the studies conducted by Lo'pez-Justicia and del Carmen Pichardo (2001) and Al-Zyoudi (2007) where female participants with vision impairment were found to score higher than male participants on the physical self-concept scale. The discrepant results between this study and that of the above researchers can be attributed to the fact that they emphasized physical looks

and appearance more in the physical self-concept dimension, as opposed to participants' state of health and perceptions of maintaining a physically healthy lifestyle which this study used.

In this study, though students (females and males) with vision impairment generally obtained low physical self-concept scores, the majority perceived that they tried or wanted to go for regular walks, runs, exercise and to be involved in community activities. This indicates the huge potential that this cohort has in terms of maintaining their physical lives. What this study highlights is the gap between what students desired in the way of physical activity and what they were actually able to practise. This gap was mainly due to the significant vision loss experienced by these students. Findings from this study revealed that students with vision impairment spend most of their time playing the outdoor games on their computer. Two noteworthy observations made by teachers were that students with low vision were found to maintain a somewhat better physical lifestyle optimizing their residual vision in comparison to students who are completely blind. As opposed to this study, Pierce and Wardle (1996) found that participants who are blind had high self-esteem and positive feelings about their physical self-concept; however, the responses from their blind samples have been argued by them to be prejudiced, defensive, self-protective and influenced by social desirability. Teachers affirmed that where families were involved in their children's well being and took them regularly to the local gym or community clubs, students with vision impairment were found to practise a healthier and better physical lifestyle. Parents, on the contrary, strongly believed that teachers had a huge role to play in facilitating children's healthy lifestyle. The findings of this study indicate that parents

and teachers are the two important influences in helping students with vision impairment to maintain physically healthy lifestyles.

### **8.2.2 Moral Self-Concept**

The majority of the students with vision impairment in this study obtained low scores in moral self-concept. The remaining students with vision impairment (less than a quarter) obtained normal scores in the moral self-concept dimension. The differences in moral self-concept between female and male students with vision impairment were not significant. This is in contrast to research conducted by Lo'pez-Justicia and del Carmen Pichardo (2001) and Al-Zyoudi (2007) who found female participants with vision impairment scored lower on what they called moral self-behaviour when compared to their male counterparts. However, this discrepancy in results may reflect a difference in the nature of samples studied. Lo'pez-Justicia and del Carmen Pichardo (2001) and Al-Zyoudi (2007) conducted studies only on participants with low vision. The present study included students with any level of vision impairment ranging from low vision to total blindness.

The interview responses from students and parents confirmed that students with vision impairment were occasionally disruptive and disengaging in class, due to extrinsic and intrinsic factors. Mood swings, no provision of appropriate modifications for students during lessons, poor management of tasks and bullying caused by sighted peers were identified by students and parents to be some of the factors linked to poor moral behaviour of students with vision impairment.

Teachers, however, shed light on these students' moral self-concept from a different perspective altogether. They believed that the moral behaviour of students with vision impairment depended largely on the kind of vision loss they experienced. Where students had congenital or hereditary vision impairment, they were found to behave better in class, in comparison to students who had acquired vision impairment due to an accident or injury. The latter group of students were often in denial of their vision impairment and this was reflected in their overt behaviour in class. Another interesting trend observed by teachers, more so among boys than girls, was that students who were blind were more likely to accept their condition and demonstrate tranquil and compliant behaviour in class, in comparison to students with low vision. Teachers also pointed out that inadequate family support was often a negative influence on the moral behaviour of students with vision impairment.

### **8.2.3 Personal Self-Concept**

The great majority of the students with vision impairment obtained low scores in personal self-concept; however, there were no significant differences between female and male students with vision impairment in this dimension.

In exploring the personal attributes of the students, the interview responses, however, established that the majority of the students with vision impairment possessed some positive traits. Two of the parents observed friendly, outgoing and cheerful traits in their children which indicated the positive qualities that students with vision impairment can have. The parents concerned, however, commented that their children were lonely and segregated due to their vision loss; one of them in particular observed her child to be quite sensitive and reactive to the opinion of others, especially if that

was pertaining to his vision impairment. Another parent observed that her child with vision impairment preferred to be in a known company rather than to explore new undertakings. Teachers, on the other hand, considered again that the level and kind of vision impairment impacted on the personal attributes developed by students with vision impairment. They reported that students with low vision and students with acquired vision impairment were in denial of the state of their vision loss and demonstrated negative behaviour in class. In contrast, students who were blind or born vision impaired, were more in accepting of their condition and exhibited positive attributes in class. In circumstances, when students with vision impairment were faced with problems they were noted by parents and teachers to depend on significant others, thus impeding the development of their own independent problem solving skills, an area that needs to be addressed in the near future. There were some students, however, who exhibited a strong desire to be independent when solving their problems, a tremendous potential for students with vision impairment. These interview comments would suggest that teachers and parents should try exploring, nurturing and maximizing the positive qualities in students with vision impairment and channel them in appropriate and meaningful directions.

#### **8.2.4 Family Self-Concept**

The majority of the students with vision impairment had low scores in family self-concept. There were more students, however, who scored in the average that is normal range, than in any of the self-concept dimensions discussed previously. The remaining students with vision impairment (slightly less than half) were more positive about family members. There were no significant differences in the family self-concept



between the female and male students with vision impairment. Contrary to this, Lo'pez-Justicia and del Carmen Pichardo (2001) and Al-Zyoudi (2007) found female participants with vision impairment to score lower on their family self-behaviour dimension when compared to their male counterparts. Kef and Devkovic (2004), Koenes and Karshmer (2000) and Rosenblum (2000) found that the wellbeing of the students with vision impairment can be positively affected by strong family networks and encouragement by adults towards independence.

The interview responses in this study revealed that the majority of the students with vision impairment shared a positive relationship with at least one member in their family. Students and their parents believed that often it was a non-disabled sibling or a step-parent who was unresponsive to the child with vision impairment. This led to mistrust and discontentment between the child and family members. In such situations, the child did not feel valuable or valued as a family member and expressed a sense of alienation from or disappointment in their families. Teachers articulated that in their opinions it was only when parents did not create an inclusive home environment, that the child with vision impairment could be seen to develop resentment and antipathy towards the family. In addition, they claimed that in some instances, the child with vision impairment was left at home, when the rest of the family went for an outing. It was in these situations that the child with vision impairment began to develop a complete disbelief and ill-feeling towards the family, sometimes even without the parents recognizing that such damage had naively and unintentionally occurred. Therefore, this study draws attention to the importance of establishing strong family networks for students with vision impairment. Creating an inclusive environment in the home is just as important as in the school.

### **8.2.5 Social Self-Concept**

The majority of the students with vision impairment had low scores in social self-concept. These students expressed a level of isolation or social avoidance that was likely to seriously interfere with the formation and sustaining of personal relationships with their non-disabled peers which is in line with Fitts and Warren's (2003) study. This conclusion is also consistent with the findings of Lucy (1997) and Cambra and Silvestre (2003) who ascertained that participants with vision impairment scored low on the social self-concept domain. In fact, Lucy (1997) found that students with vision impairment scored very low in this domain. Her questionnaire findings were consistent with her interview responses which indicated that students with vision impairment often feared rejection by their sighted peers and so preferred to remain secluded and isolated. Another study by Cambra and Silvestre (2003) indicated that students with special needs scored significantly lower than their non-disabled counterparts in the social self-concept dimension. However, it should be noted that the results obtained by Cambra and Silvestre (2003) were from a study of students with special educational needs in general, which included students with hearing, motor, visual, relational, learning and mental disabilities and so vision impairment was only one among many kinds of exceptionalities.

In the present study, slightly less than a quarter of the students with vision impairment obtained social self-concept scores in the normal range which represented a greater proportion of the students with vision impairment, than the first three dimensions of self-concepts. There were no significant differences in the social self-concept between female and male students with vision impairment. Contrary to this, Lo'pez-Justicia and

del Carmen Pichardo (2001) and Al-Zyoudi (2007) found female subjects with vision impairment to score lower on the social self-concept than male subjects.

The interview data for this study indicated that most of the students expressed a latent desire to interact with friends. However, some of them felt shy and awkward in networking with their sighted peers, due to their vision loss or sometimes to not owning their own transport. At other times, students with vision impairment were subjected to bullying by their sighted peers and such experiences kept them away from social interactions with the general populace. They were hesitant to take the social risks involved in relieving their isolation. It was also found that students with vision impairment preferred social interactions to be more structured. They had to direct so much of their effort and concentration towards their movement that they were usually left out of the general chit-chat of the classrooms. This is consistent with the research conducted by Huurre and Aro (1998) where adolescents with vision impairment were reported to experience more often feelings of loneliness and isolation in making friends.

Parents' interview data confirmed that their children with vision impairment were shy, lonely and were often not invited to parties and other social hangouts by their sighted peers. This created a negative impact on the social self-concept in students with vision impairment. Hatlen (2004) and Kef (2002) found that social isolation and perceptions of disability by peers can impact on the self-concept of the adolescents with vision impairment. A ground breaking discovery made by one of the parents was that sometimes students with vision impairment found better associates and greater warmth with their online peers in comparison to their classroom friends. This brings us to

another unique aspect of how important and significant the influence of the cyber world can be in the social lives of students with vision impairment rather than the real world.

Teachers' interview responses revealed that the lower the vision the more challenging it became for the student to interact. Teachers again pointed out that most students who acquired their vision impairment at a later stage were often in denial of their condition and could not get along well with their sighted peers. One of the teachers claimed that some schools organized lunch time social activities where students who were sighted and those with vision impairment were able to integrate; however, most often, students with vision impairment were left out by their sighted peers. This study revealed that by establishing structured groups in the classroom and educating the sighted students about the conditions of vision impairment teachers could facilitate more effective interaction between sighted students and those with vision impairment and thus enhance the social lives of students with vision impairment.

### **8.2.6 Academic Self-Concept**

The majority of the students with vision impairment had low scores in academic self-concept. This could indicate that these students displayed difficulties in school or college settings. This is in line with research conducted by Lucy (1997) who found that students with vision impairment scored low on academic self-concept, primarily because these students emphasized their low academic achievements in school. Cambra and Silvestre (2003) expressed similar views that students with special needs, which included students with vision impairment, were noted to score low in the academic self-concept dimension. It is worth noting that slightly lower than half the students with vision impairment in this study had academic self-concept scores in the average,

(normal) range. There were no significant differences in the academic self-concept between female and male students with vision impairment.

Findings linking vision impairment and high academic self-concept scores, however, were revealed by Bolat et al. (2011) who found that in the intellectual and school-status subscale within the Piers-Harris Children's Self-Concept scale (which could be regarded as comparable to the academic self-concept in the Tennessee Self-Concept Scale: Second Edition used in this study) adolescents with vision impairment scored significantly high. The sample used in Bolat et al.'s (2011) study included participants with only congenital/ hereditary vision impairment and it can be argued that they were more in accepting of their state of vision loss and had learned and mastered unique ways to cope with it since the impairment was present at birth. Therefore, these participants with vision impairment were familiar with ways to adapt and accomplish new learning, thus obtaining significantly high scores in the academic arena.

In this study, the interview responses indicated that most of the students with vision impairment expressed a desire to learn new things. Many students were found to possess a general willingness and readiness to learn. Teachers and Counsellors should maximize this positive zeal and enthusiasm for new learning in students with vision impairment to bring in greater success for them. Lucy (1997) in her study also reported that even when participants with vision impairment portrayed a general confidence towards learning, in spite of obtaining poor scores on the academic self-concept, they often demanded additional help in the form of emotional support.

Parents were of the opinion that the State should provide different kinds of software in the form of screen magnification, jaws speech, text to audio software to students with

vision impairment free of cost which could aid and benefit the learning of students with vision impairment. Parents also identified that these students should be provided with greater help and assistance from teachers and the School counsellor. Teachers, however, shed further light on the importance of resources. They claimed that when students with vision impairment were not provided with classroom material/ resources in the correct format, this could slow up the whole process of their learning in comparison to their sighted peers. Teachers believed that most activities and new learning were almost always contingent on visual cues; for students with vision impairment, such new learning was more time consuming, difficult and stressful, even though these students had no cognitive deficits. These circumstances clearly impacted on the ability of students with vision impairment keep up with sighted peers in the academic arena. The importance of the home, classroom setting, teacher's skills and expertise and attitude of sighted peers towards students with vision impairment were some of the other key factors pointed out by teachers which could influence students' academic lives.

The findings of this research identified a significant gap between the students' potential for learning and their actual performances in classrooms. The students with vision impairment had potential for new learning (confirmed by their interview responses). However, when it came to actual implementation of their learning to new situations, they were found to underperform in most circumstances mainly due to their vision loss.

### **8.2.7 Total Self-Concept**

The majority of the students with vision impairment obtained low total self-concept scores. These students with vision impairment were quite reactive to external cues related to their disability. The majority did not take risks in any situation and preferred

to remain confined to themselves. Their achievements were usually lower than what they were capable of and their self-concept did not reflect a good fit between their abilities and their goals. The self-concept scores of the students with vision impairment in this study, described as low on the basis of the scoring interpretations provided in the Tennessee Self-Concept Scale: Second Edition Manual, appear to be consistent with the results reported by Hare and Hare (1977), Tuttle (1984), Lucy (1997) and Mishra and Singh (2012). In these studies, participants with vision impairment were found to have a negative or low self-concept when compared to the standard norms, as they perceived themselves to be different from their peers.

The results of the present study contradicted the findings of Obiakor and Stile (1990) and Lifshitz et al. (2007) who found participants with vision impairment to have higher self-concept scores when compared to the sighted cohort. It can be argued that since Lifshitz et al. (2007) read the questionnaire aloud to individual students with vision impairment, it might have led participants to present an idealized version of themselves.

This study found no significant differences in total self-concept between female and male students with vision impairment. This is in congruence with research conducted by Halder and Datta (2012a) who also found no significant differences in the total self-concept scores between the male and female adolescents who were blind in India. The results of this study are contrary to the findings obtained by Were et al. (2010) and Garaigordobi and Bernar'as (2009). Were et al. (2010) found that boys who were vision impaired in Kenya had lower self-concept in comparison to girls and they recommended counselling sessions for boys to help them accept their disability positively whereas Garaigordobi and Bernar'as (2009) found women with vision

impairment to score lower in self-esteem in comparison to men with vision impairment in the Basque country in Spain. These discrepant results in self-concept scores obtained by male and female participants with vision impairment could be attributed to the fact that the studies were conducted in different countries like Kenya and Spain which have distinctive and contrasting populations and cultures. Another factor leading to discrepant results obtained by researchers could be that each of these research studies employed different kinds of instruments to measure self-concept.

Overall the present study found that the majority of the students with vision impairment obtained low total self-concepts as they often compared themselves with other sighted peers. These students with vision impairment perceived themselves to be different from their sighted peers and, according to the social comparison theory, it is likely that the self-concepts of students with vision impairment decrease due to upward comparisons (Gibbons, 1986; Szivos-Bach, 1993). It can be inferred that a very small percentage (7.5%) of the students with vision impairment who obtained normal total self-concept scores often compared themselves to peers who performed at a lower level than themselves in their weaker areas, in order to maintain their positive/average self-view. According to the social comparison theory, these students with vision impairment engaged in downward comparisons that might stimulate their own development rather than making more threatening upward self-comparisons (Crocker et al., 1987).



## **8.3 Test Anxiety of Students with Vision impairment**

This section contains the remarkable findings that emerged from the questionnaire and interview responses in relation to the different components of the test anxiety of students with vision impairment.

### **8.3.1 Test Anxiety**

The majority of the students with vision impairment had high scores in total test anxiety, worry and emotionality components of the Test Anxiety Inventory. This is indicative that these students were anxious, fearful and nervous with the manifestation of higher amounts of physical reactions and cognitive concerns in a testing situation. There were no significant differences between female and male students in total test anxiety and in each of the components of test anxiety.

The interview responses indicated that most of the students with vision impairment expressed feelings similar to being nervous, anxious, restless and fretful before and during a testing situation. There were, however, a small number of students with vision impairment who thought that they felt relaxed and confident, while taking an examination. Overall, the results were consistent with Eniola's (2007) findings that students who were visually impaired experienced greater levels of anxiety when compared to their sighted peers. Furthermore, this was found to have a detrimental effect on the overall school performance of students with vision impairment.

Some of the students and parents in this study attributed students' vision impairment to be the reason for test anxiety, while others thought that lack of preparation and confidence, high goals set by students themselves and incorrect test format without any

modifications constituted the other factors. This is in congruence with research conducted by Young (1999) who indicated that students without disabilities suffered from test anxiety because students were unfamiliar with some question types and particular exam formats which caused them to worry unnecessarily.

On a positive note, the majority of the students with vision impairment devised their own techniques and strategies to overcome their anxiety and help them calm down before and during examinations. Teachers articulated their views on similar lines and often found that the students' disability formed the basis of their fear and worry during examinations. Teachers established that students with vision impairment were tense if the examination was not in the correct format for them or if the exam was heavily dependent on visual cues and capacity. Exposing students more to tests, greater practice, repetition, drilling, over learning and provision of appropriate resources were some of the measures suggested by teachers to alleviate the test anxiety experienced by students with vision impairment.

#### **8.4 Influence of the Support Services on Students with Vision impairment**

The following subsections contain the key findings that emerged from the interview responses regarding the influence of the support services on students' problem solving skills, family, social and academic lives and test anxieties. These findings can make a unique contribution to the field of special education as there are no previous studies which specifically focus on students', parents' and teachers' views of the influence of support services on these areas.

#### **8.4.1 Influence of the Support Services on Students' Problem Solving Skills, Family, Social and Academic lives**

In reference to the influence of the support services on students' problem solving skills, family, social and academic lives, the interview responses obtained from the three groups of participants articulated mixed perspectives on each of the aspects. Most of the students with vision impairment and their parents claimed that the support services offered in schools assisted students with vision impairment to solve their daily problems in some ways. In the academic lives of students, for example, a majority of the students and all of the parents established that the support provided students with vision impairment with good resources to aid their development in the academic arena and thus were regarded as a positive influence.

Although, a majority of the students perceived that the support had no effect on their family lives; most of the parents identified that the support positively influenced family relationships. Parents felt relieved that their child was looked after in the school by the provision of appropriate support services and this made parent-child relationships more calm and secure. This draws our attention particularly to another unique aspect, the trust and faith that parents had in the provision of proper support services by the schools for their children with vision impairment.

In the case of social contexts, most of the students and parents recognized that the support services taught students with vision impairment the non-verbal cues/communication, appropriate gestures, eye contact and body language which otherwise these students would not have been aware of or able to use effectively. However, a few of the students and their parents believed that the support services had no positive effect on the social lives of these students as availing themselves of these

services in the presence of peers made students with vision impairment feel humiliated and embarrassed. In such instances, the support services were simply creating a distance or barrier between these students and the sighted students. Therefore, what needs to be noted here is that the support services should be provided to students with vision impairment more in confidence without drawing other students' attention to the special provision.

Teachers had a different set of interview responses when compared to the students with vision impairment and their parents. All teachers perceived that the support services made an enormous contribution to the lives of students with vision impairment and added positively to the development of the students' problem solving skills. A majority of the teachers perceived that the support helped students with vision impairment to learn skills to be independent at home and provided practical information to families about the conditions of their child's state of vision. It can be inferred from the teachers' responses that such useful information about the conditions of a students' disability should be provided to the other students in the class as well, in order for the classroom to be more inclusive for all. All the teachers claimed that the support provided good social skills training for students with vision impairment. They claimed that the students' difficulties in establishing appropriate social networks in the classroom was due to the negative attitude sometimes displayed by their sighted peers and had nothing to do with the support services.

According to teachers, the academic aspect was the area where students found the maximum benefit from support services in the form of expanded core curriculum and assistive technology being offered to students with vision impairment. The expanded

core curriculum provided students with vision impairment orientation and mobility and independent living skills training. However, in spite of the positive influence of the support services in the academic arena perceived by the three groups of participants, students with vision impairment were still found to score low (confirmed by the questionnaire data) on this dimension of self-concept. The reasons could be multifaceted and overlapping. For example, students with vision impairment might not make optimum use of the support services, or were too embarrassed to avail themselves of these services in the presence of their peers. Sometimes services were not provided to the students at the right time (during examinations or when new learning needed to take place), or teachers had not received adequate training to effectively use some of the software for these students. At other times, there was a lack of coordination between support teachers, subject teachers and students with vision impairment.

#### **8.4.2 Influence of the Support Services on Students' Test Anxiety**

The interview responses confirmed that the majority of the students with vision impairment were of the opinion that the support services equipped them to take a test/exam better by providing them with extra time, a scribe, audio recorder, magnifiers, adapted technologies and enlarged print facilities during examinations. Parents and teachers also agreed that the support services played a positive part in strengthening students' test taking abilities and in reducing the stress and anxiety in students with vision impairment during tests/examinations. These supports helped students not only to meet their deadlines and the challenges experienced during examinations, but also to set up and organize study schedules and accomplish the goals documented in their Negotiated Education Plan. However, a notable finding was that the support services should be provided in greater magnitude and proportion in order for students to reap its

maximum benefit. Sometimes, it was found that if one kind of service was available in schools, another type was missing. A combination and blend of all kinds of services in the right format at the right time was reported to be essential for students with vision impairment. This means that the best situation for students with vision impairment is when the support teacher, subject teacher and the students themselves are all working together so that there is excellent planning, organization and resources, as well as good family cooperation. An inexperienced support teacher or an unsupportive home environment immediately causes problems. In some schools, the School Service Officers (SSO)'s are dedicated and provide great back up to the teachers. But in other schools, practical difficulties in the form of unskilled and untrained teachers have created problems. Much also depends on the attitude of the students with vision impairment. If the students are in denial of their vision loss because they have acquired their vision impairment later, and pretend that they can read when they cannot, it creates problems that are difficult to overcome.

Therefore, in summary, the key findings from this investigation indicated that students with vision impairment had low self-concepts, but there were three dimensions, family, social and academic self-concepts where a greater number of students were in the average or normal range than in the other dimensions of self-concept. Clearly this research shows vision impairment has a negative influence on self-concept; those students who acquired vision impairment achieved significantly poor outcomes in the dimensions of self-concepts than those who had congenital vision impairment. Students with vision impairment were found to experience higher levels of test anxiety; however, some of them devised their own coping mechanisms. In reference to the influence of the support services, it can be concluded that the support services positively influenced the

problem solving skills, the social behaviour and the academic lives of students with vision impairment.

While the majority of the students with vision impairment established that the support services had no influence on their family relationships; their parents and teachers, on the other hand, perceived some useful effects on students' family lives. In relation to the influence of the support services on students' test anxiety, a positive influence was found for students with vision impairment. Whether such fundamental, imperative and distinctive findings are found under the similar themes for students with intellectual disability is discussed below.

## **8.5 Self-Concept of Students with Intellectual disability**

This section contains the noteworthy findings that emerged from the questionnaire and interview responses along the different dimensions of self-concept for students with intellectual disability. It should be noted that no previous studies have investigated exclusively the various dimensions of self-concept only for students with intellectual disability in the way that this study has.

### **8.5.1 Physical Self-Concept**

The great majority of the students with intellectual disability obtained low scores in physical self-concept. The Welch independent t-tests, however, showed that there were no significant differences in the physical self-concept dimension between the female and male students. The interview responses confirmed that the majority of the students with intellectual disability made an effort to stay healthy, go for regular walks and also

engage in outdoor activities. However, for a very few students their disability was such that they could not keep up their physical health independently; they had to rely on others and this dependence was a deterrent to maintaining the right and ideal kind of lifestyle. Parents expressed similar sentiments to students. This positive effort initiated by students with intellectual disability can be nurtured, developed and channelled by parents and teachers to assist them in narrowing the gap between their scores obtained and their efforts pursued on this dimension.

According to teachers, students with intellectual disability were not health conscious and found it difficult to recognize the adverse long term negative effects that a poor lifestyle could cast on their health. Thus, because most of these students had little opportunity to develop intrinsic motivation for maintaining healthy life styles, they became lazy, sat back at home and watched television. In such situations, the home and the school should play equal roles to provide some extrinsic motivation for students with intellectual disability so that they are able to keep up to the minimum standards of maintaining a healthy lifestyle.

### **8.5.2 Moral Self-Concept**

The majority of the students with intellectual disability had low scores in moral self-concept. The remaining students with intellectual disability (slightly more than a quarter) obtained moral self-concept scores in the normal range. There were no significant differences in the moral self-concept in female and male students with intellectual disability.



The interview responses conveyed that sometimes, students with intellectual disability displayed obedience, compliance and introvert traits. However, there were other times when they were found to engage in aggressive and obstinate behaviour, more often in home than school. Parents and teachers commented that the negative behaviour occasionally displayed by these students at home and at school was mainly due to mood swings or depression commonly experienced by individuals with intellectual disability and could not be construed as intentional or purposeful. Otherwise, apart from these awkward behaviour manifestations, parents claimed their children with intellectual disability were generally calm, self-possessed and honest. Students with intellectual disability would benefit from learning at school a positive interest or hobby which they should be taught to engage in during these adverse times. One of the teachers also shed light on the fact that the moral self-concept of students with intellectual disability depended significantly on the attitude and behaviour demonstrated by their peers towards them.

### **8.5.3 Personal Self-Concept**

The great majority of the students with intellectual disability had low scores in personal self-concept. There were no significant differences in the personal self-concept of female and male students in this cohort. The interview responses articulated that most of the students with intellectual disability believed that they were helpful, kind and dependable. However, when it came to the individual's sense of personal worth and feelings of adequacy as a person, they considered themselves low in this aspect (confirmed by the questionnaire data). This is consistent with the social comparison theory (Gibbons, 1986; Szivos-Bach, 1993), which states that people with disabilities

living in the community will make comparisons with other non-disabled groups and it is likely that their self-concept will decrease because of the negative frame of reference effects.

In this study, parents were of the opinion that their children with intellectual disability had the potential to display positive characteristics like reliability, responsibility and obedience; however, they were also noted to exhibit stubborn, obstinate and sensitive traits mainly because they were subjected to bullying from their non-disabled peers. This cast a negative impact on the personal self-concept of the students with intellectual disability which could eventually send them into long term depression. If this bullying and harassment continue for an extended period, these students with intellectual disability could develop feelings of self-hatred which could signal the possibility of episodic self-destructive behaviour as suggested by Fitts and Warren (2003). This implies that the teachers and school counsellors should provide assistance and support to students with intellectual disability before such crisis situations arise and strive to make the classroom more inclusive for all.

One of the teachers described students with intellectual disability as shy, secluded and withdrawn most of the time, stating they dreaded interacting with new people lest they should be subjected to bullying and discrimination. Sometimes, students with intellectual disability were noted to demonstrate disorderly and troublesome behaviour which was often not intentional, but rather impulsive and abrupt, due to their intellectual discrepancy. Most teachers and parents considered that students with intellectual disability did not possess the capability and proficiency to solve their own problems independently, thus making them highly dependent and reliant on significant

others. Often due to students' cognitive deficits, they lacked judicious and effective strategies to combat their problems in life. In spite of teachers making a conscious effort to train students on this aspect, it is still an area of serious concern.

#### **8.5.4 Family Self-Concept**

The majority of the students with intellectual disability had low scores in family self-concept. However, slightly less than a half of the students with intellectual disability obtained family self-concept scores in the normal range. Abells et al. (2008) indicated that most students with intellectual disability preferred to participate in activities with family members rather than with their peers. There were significant differences in the family self-concept in female and male students with intellectual disability. The female students with intellectual disability were found to be significantly higher than the male students.

The majority of the students with intellectual disability in this study claimed in the interviews to share a contented and genial relationship with most members of the family and, often with another sibling with disability. Parents and teachers articulated their views on similar lines as they believed that a child with intellectual disability always got along well with another sibling with disability. However, they reported that often tension arose between a child with intellectual disability and another sibling without disabilities or a step-parent. Parents believed that it was easier to form a good relationship with a girl with intellectual disability rather than a boy because feminine traits were known to be softer and milder compared to masculine traits. Teachers found mothers to be more considerate, thoughtful and patient towards their child with intellectual disability in comparison to fathers.

These findings suggest that in order to enhance and improve the family self-concept dimension in students with intellectual disability, all the members of the family need to be equally educated and responsive to the conditions and needs of the child. Parents need to devote more time to their children with intellectual disability and talk frankly and candidly to other family members as well, educating them about their children's disability to facilitate better co-existence and all round development of their children.

### **8.5.5 Social Self-Concept**

The majority of the students with intellectual disability had low scores in social self-concept. Stanovich et al. (1998) reported similar findings to this study; they found that students who had exceptional needs scored very low on measures such as social acceptance. However, Stanovich et al. (1998) included in their research students with learning disabilities and behaviour problems, not only students with intellectual disability as in this present study. Therefore it was not possible to isolate or segregate the results exclusively obtained by students with diagnosed intellectual disability. Zic and Igric (2001) also found that students with intellectual disability were more often rejected by their peers. Research conducted by Abells et al. (2008) revealed that adolescents with intellectual disability could not interact well with their peers; the reasons mainly being their disability and lack of available supports. In the present study, there were significant differences in the social self-concept between female and male students with intellectual disability; the female students with intellectual disability were found to be significantly higher than the male students with intellectual disability.

The interview responses revealed that students with intellectual disability portrayed themselves to be standoffish, restrained and reserved, primarily because they lacked the

skills to initiate and sustain conversations. These students lacked the confidence and essential communication cues which could help them to strike up or carry on a conversation with peers. These interview findings would suggest that with more training in speaking and communication skills, students with intellectual disability could improve in the social self-concept dimension. Teachers and special educators need to instil a greater amount of confidence and positive communication abilities by involving these students in more and more group activities with non-disabled peers in their mainstream classes.

Parents in this research, held views similar to their children that students with intellectual disability lacked the competence and capability to interact with their non-disabled peers and most often were the focus of contempt and disdain in the classrooms. Teachers, however, observed an interesting trend among students with intellectual disability. Although, students with intellectual disability were noted to have fewer friends in the classrooms they appeared to compensate for this loss by establishing a good social network online. They reported students with intellectual disability had a close circle of friends on face book and twitter rather than in schools. Students with intellectual disability were also found to share a strong bond in a special setting with other students with disabilities rather than with students without disabilities. This study clearly shows that these students experienced social ineptness and discomfort in some selective contexts like the mainstream classrooms. This begs the question as to whether students with intellectual disability are being left out from some non-disabled mainstream peer activities. These forms of estrangement, alienation and drifting apart from their non-disabled peers in the classrooms helped to explain the low scores obtained by students with intellectual disability in the social self-concept dimension.

### **8.5.6 Academic Self-Concept**

The majority of the students with intellectual disability had low scores in academic self-concept. In line with Fitts and Warren (2003) it can be interpreted that these students had cognitive impairments that interfered with their ability to perform in school or college settings. Results similar in nature were obtained by Crabtree (2003) and Marsh et al. (2006). Crabtree (2003) found that adolescents with mild intellectual disability in regular schools had considerably lower academic self-concepts. Marsh et al. (2006) however, established that those preadolescents with mild intellectual disability who were placed in segregated classes also had lower academic self-concepts. Since this study included students with intellectual disability from both mainstream and specialist settings, it is worth noting that low academic self-concept scores obtained by students with intellectual disability were evident in both settings. The findings are in agreement with the 'big fish little pond' theory (discussed in Chapter 3) which states that students with mild disabilities often compare themselves with peers without disabilities who perform better academically and this in turn adversely affects the self-evaluations of students with mild disabilities resulting in their low academic self-concepts (Marsh, 1984). Donohue (2008) and Wiest et al. (1998) found that children with cognitive deficits who have low academic scores compensated for their loss in other non-academic arenas such as in physical abilities and socializing with peers. However, the results of the present study are not in line with Donohue (2008) and Wiest et al.'s (1998) findings. Students with intellectual disability in this study were found to obtain low scores not only in the academic self-concept but also in other non-academic dimensions of self-concept, thus casting a negative impact on the total self-concept of these students. Nevertheless it needs to be pointed out that slightly over than a quarter

of the students with intellectual disability obtained academic self-concept scores in the normal range. There were no significant differences in the academic self-concept of female and male students with intellectual disability.

Interview responses from the students with intellectual disability indicated that these students possessed the ardour and impetus to learn new things and made an attempt to devise their own techniques to achieve it. This represents a positive dimension in the results. Teachers established that it often took students with intellectual disability longer and they required greater effort on their part to acquire new learning as compared to their non-disabled peers. This can be accredited primarily due to their cognitive deficits. Parents too found their children with intellectual disability to be slow and time-taking learners. One of them believed that her child construed failure too often and too early which discouraged her to spontaneously engage in any new learning. According to teachers, students with intellectual disability should be provided with more hands on activities and one-on-one interactions for a firmer understanding of a topic. These comments would suggest that teachers needed to provide students with intellectual disability with better strategies and resources to make new learning easier, exciting and spontaneous for them. These students are likely to learn well when tasks are presented to them in gradual steps and modelling may also be effective. However, as teachers usually had heavy workloads and large classes to cater for, individualized instruction and attention could not be delivered by teachers without additional resources. The lack of such support often accounted for the low academic scores obtained by students with intellectual disability.

### **8.5.7 Total Self-Concept**

The great majority of the students with intellectual disability had low scores in total self-concept on the basis of the scoring interpretations provided in the Tennessee Self-Concept Scale: Second Edition Manual. The findings showed that these students were less likely to hold a constructive image of themselves. It can be interpreted according to the work of Fitts and Warren (2003) that such individuals often felt nervous, dejected and fretful about their situation. Students with intellectual disability perceived themselves to be different from their non-disabled peers and most often felt stigmatized, which cast a negative influence on their overall self-concept (Abraham et al., 2002; Dagnan & Waring, 2004; Gibbons, 1986; Paterson et al., 2012; Szivos-Bach, 1993). Participants with intellectual disability frequently encountered certain negative experiences (e.g. perceived intellectual inadequacy, a disproportionately high incidence of academic and social failure, social stigmatization and discrimination) and they were generally viewed as being at risk for low self-concepts (Elbaum & Vaughn, 2001). Similar findings were obtained by Silon and Harter (1985) and Cunningham and Glenn (2004) who indicated that students with intellectual disability were generally more susceptible and vulnerable towards developing a negative self-concept due to their impaired cognitive ability. Dixon et al. (2006) found that participants with mild intellectual disability (even after being exposed to good facilities) had low to average self-esteem compared to the normative groups on this measure. Recent research by Garaigordobil and Pérez (2007) also revealed that students with intellectual disability scored significantly lower in both self-concept and self-esteem.

In contradiction to the group of researchers stated above, Li et al. (2006) found that the respondents with intellectual disability used in their studies had surprisingly higher total



self-concepts than those of a group of respondents without disabilities. However, the possible explanation for this was that the participants used the in-group social comparison to maintain positive perceptions and since most of the participants were in segregated vocational settings they easily adopted the in-group social comparison strategy. Huck et al. (2010) also found that children with intellectual disability integrated in mainstream classes in Sydney were able to maintain positive self-concepts. However, it should be noted that not all children were integrated into mainstream classes when the data were collected and therefore, the chances that these children perceived themselves to be different from their peers was limited. Duvdevany (2002) on the other hand, found the overall self-concept of individuals with intellectual disability who participated in integrated activities to be higher than of those who participated in segregated programmes. Similarly, Begley (1999) also found that students with Down syndrome placed in mainstream classes generally had more positive self-concepts than students in schools for children with moderate disabilities. This is indicative that students with intellectual disability placed in mainstream classes were able to hold positive self-concepts in some contexts, demonstrating a huge prospective for this group of students.

In the present study, there were some students with intellectual disability (less than a quarter) who obtained total self-concept scores in the normal range. According to the social comparison theory, when the self-concept is in jeopardy, there are three possibilities: people may minimize or limit comparisons (Brickman & Bulman, 1977), avoid upward comparisons (Steil & Hay, 1997) or try to self-enhance by engaging in downward comparisons (Crocker et al., 1987). It can be inferred that in this study, those students with intellectual disability who obtained normal self-concepts engaged in some

of these three possibilities, to maintain their average self-view. There were no significant differences in the total self-concept of female and male students with intellectual disability. This is in congruence with research conducted by Garaigordobil and Pérez (2007) wherein no significant gender differences were noted in self-concept among students with intellectual disability.

## **8.6 Test Anxiety of Students with Intellectual disability**

This section contains the important findings that emerged from the questionnaire and interview responses along the different components of test anxiety for students with intellectual disability.

### **8.6.1 Test Anxiety**

In the total test anxiety, worry and emotionality, the majority of the students with intellectual disability had high scores. This implies that these students experienced high cognitive distress and physical discomfort before submitting an assignment. There were significant differences between the female and male participants in the total test anxiety and in the two components of test anxiety; the female students were found to be significantly higher than the male students. This implies that female students with intellectual disability were more tense, nervous, anxious and apprehensive before submitting an assignment or performing in an examination in comparison to male students with intellectual disability. Female students with intellectual disability had greater negative cognitive concerns and physical discomfort in an evaluative situation in comparison to male students with intellectual disability. Other research studies found non-disabled female students also experienced higher levels of test anxiety symptoms

than non-disabled male students (Cassady & Johnson, 2002; Chapell et al., 2005; Rezazadeh & Tavakoli, 2009; Seipp & Schwarzer, 1996; Trifoni & Shahini, 2011; Wren & Benson, 2004). The present study confirms that students with intellectual disability were no exception to the gender specific patterns of behaviour established by students without intellectual disability in relation to test anxiety research.

The interview responses confirmed that the majority of the students with intellectual disability found that they were worried, apprehensive and tense before submitting an assignment, in situations when they had to perform in class and before and during an examination. This could be attributed to their intellectual impairment. In most situations, students with intellectual disability took longer than usual in preparing themselves for a new task. This is consistent with research conducted by Eysenck (2001), de Decker et al. (2003) and Yousefi et al. (2010) who found that there was a direct relationship between test anxiety and cognitive deficits. Vasa et al. (2007) also indicated that respondents who experienced higher test anxiety had lower memory scores. Stenager et al. (1994) and Hembree (1988) found that anxiety was a sign of cognitive dysfunction and high levels of test anxiety were found to be inversely proportional to intelligence quotient. Therefore, the evidence indicates that students with intellectual disability are subjected to greater amounts of test anxiety, as have been found in this study. Overall, the implications of these findings are that students with intellectual disability require more practice, repetition, over learning and greater mastery of any new skill to put it into practice and should engage in bodily exercises and meditation to increase their level of concentration, memory and retention abilities during examinations.

Parents and teachers articulated their opinions on similar lines, that students with intellectual disability experienced greater amounts of nervousness, apprehensions and anxiety before submitting an assignment or performing in an examination due to their cognitive deficits. They believed that these students interpreted failure too often and too quickly. Parents, however, indicated that schools did not adopt sufficient measures to address this problem and devise appropriate strategies for these students to alleviate their test anxieties. Such comments suggest that teachers and special educators need to devise specific study skills, devote extra time and provide specialized learning techniques for students with intellectual disability so that they are able to feel more confident and competent while taking an examination or submitting an assignment.

## **8.7 Influence of the Support Services on Students with Intellectual disability**

The following subsections contain the key findings that emerged from the interview responses regarding the influence of the support services on students' problem solving skills, family, social and academic lives and test anxieties. This was a unique contribution to the field of special education and therefore, there are no previous studies to refer to in the discussion of it.

### **8.7.1 Influence of the Support Services on Students' Problem Solving Skills, Family, Social and Academic Lives**

The interview responses obtained from the three groups of participants provided diverse views on the influence of the support services on students' problem solving skills, family, social and academic lives. Generally, some of the students with intellectual disability were of the opinion that the support services offered at school assisted them in a few of their day-to-day tasks/problems and helped them to devise and manage

strategies with their disabling condition. In contrast, the majority of these students believed that the support services had no positive impact on their family lives. Though some students accepted that the support teacher taught them to interact better with the mainstream children, the majority reported difficulty in networking with their non-disabled peers. Most of the students with intellectual disability seemed bewildered and oblivious of the benefits rendered by the support services and could not provide any instance of a positive outcome of the support services on their lives. The academic arena was the only aspect where a large majority of the students with intellectual disability indicated that the support was a positive influence in helping them to study and work independently.

A very few of the parents were of the opinion that in some limited instances the support services assisted their children with intellectual disability to partially solve their problems, integrate and inter mingle with the regular children in the mainstream, and complete the learning tasks in hand. However, the services in most cases were noted to be so meagre, intermittent and erratic that they failed to have any marked influence on students' problem solving skills, family, social and academic lives.

Teachers, on the other hand, claimed that the support services helped students with intellectual disability to solve their real life problems by providing them with different problem scenarios in class and equipping them with the basic and necessary skills to deal with them. According to the teachers, although the support services assisted students with intellectual disability to develop appropriate social behaviour in the classrooms, they were, surprisingly, found to have good social connections and bonds, not in the actual classrooms but in the virtual world, through face book and twitter. The

failure to create social networks in the classroom, according to teachers, was attributed to factors like lack of trained staff and resources in schools and lack of adequate funding from the government for this cohort. Therefore, teachers were of the opinion that the support services provided in schools were not of much assistance in the progress of students with intellectual disability' social lives; and were devoid of any influence on students' family lives. However, all teachers identified that the support services positively influenced the academic lives of these young people, by assisting them to be independent in school work. Teachers considered that support in the form of explicit and relevant training in life skills to students with intellectual disability made them fairly self-sufficient in leading independent lives.

### **8.7.2 Influence of the Support Services on Students' Test Anxiety**

A small number of the students with intellectual disability perceived the support services to be constructive and practical in helping them to complete their assignments and to perform well in any testing situation. The students' interview responses indicated that the support teacher assisted them to acquire broader insights into abstract concepts and theories by working with them on a one-on-one basis and providing explanations by breaking the topic into smaller wholes. Most students with intellectual disability, however, found that the support services had no effect on their abilities to take a test/exam better. A small minority remained unsure about the influence of the support services in their test situations.

Parents were generally of the conviction that their children with intellectual disability usually had to go through worries and stress before submitting an assignment or performing in an examination and that the support services were of little use in reducing

the stress/anxiety experienced by students ahead of such tasks. Teachers, on the other hand, considered that the support services, in the form of one-on-one service, modified computer software and sensory equipment, did play a positive role in providing relief and respite to students with intellectual disability before and during an assignment/test. However, the teachers, in spite of such positive benefits rendered by the support services in schools, perceived a lack of confidence exhibited by these students before submitting any assignment. The findings of the study indicate that the main reason underlying such imbalances was a dearth of trained teachers who could employ and use the modified software and sensory equipment effectively to improve the experiences of the students with intellectual disability.

Therefore, in summary, the key findings indicated that students with intellectual disability had low self-concepts, but there were two dimensions, family followed by academic self-concepts where a greater number of students were in the average or normal range than in the other dimensions of self-concept. Intellectual disability clearly has a negative influence on self-concept and teachers need to devote more time, individualized attention and provide greater resources and support services to these students. Students with intellectual disability were found to experience higher levels of test anxiety; albeit females were significantly higher than the males.

Students with intellectual disability and their parents concluded that support services did not cast any dominant influence on students' abilities to solve problems, or on their social and family lives and some of the students even remained ignorant and oblivious of any positive influence of the support on the above aspects. Teachers, on the contrary, considered that student's problem solving had been helped by the support given, their

social life to a more limited extent and their family life was not influenced by the support. The academic lives of students with intellectual disability were the only area where students and teachers perceived a positive influence; however, parents recognised a limited influence of the support on this aspect as well. In relation to the influence of the support services on students' test anxiety, the positive effect for students with intellectual disability was shown to be less than for students with vision impairment.

## **8.8 Chapter Summary**

In this chapter, the significant statistical and key qualitative findings that emerged from the survey questionnaires and interviews have been summarized and interpreted under the themes used in Chapters 5, 6 and 7. These findings were then supported and contrasted with the literature, wherever available. In the next Chapter, the threads of the entire study, together with the research questions and answers provided by this research are drawn together towards the final conclusions. Implications for educational practice and future research are also discussed in this final Chapter.



## **CHAPTER 9: CONCLUSION**

### **9.1 Structure of the Study**

The purpose of this chapter is to restate the structural and informational content of this thesis together with the outcomes of the study, its implications for educational policy and practice and recommendations for future initiatives. This research has been a small scale study which has provided a limited basis for generalizing to any wider population beyond the participants themselves. Nevertheless, the richness of its data has provided deeper understandings and insights into the self-concepts, test anxieties and the influence of the support services on the two disability cohorts- students with vision impairment and students with intellectual disability.

This study determined the self-concept and test anxiety scores of these students (females and males) placed in specialist and mainstream settings in South Australia. The self-concept scores were investigated across the dimensions namely Physical, Moral, Personal, Family, Social, Academic Self-Concepts and Total Self-Concept. The test anxiety scores were investigated across the components namely Worry, Emotionality and Total Test Anxiety. The study provided insights into what students with vision impairment and those with intellectual disability were able to achieve in the different dimensions of self-concept and identified the reasons for high or low self-concepts in the two disability groups respectively. It further provided the reasons for high or low test anxiety in the two groups. In addition, this study examined the influence of the support services provided in schools for the students with vision impairment and those with intellectual disability on these students' problem solving

skills, family, social and academic lives and test anxiety. The central research questions that guided this study were:

- What are the scores of self-concept and its dimensions for the female and male students with vision impairment and those with intellectual disability in South Australia?
- What are the scores of test anxiety and its components for the female and male students with vision impairment and those with intellectual disability in South Australia?
- Are there any significant differences in the scores of self-concept and its dimensions for students with vision impairment and those with intellectual disability with respect to gender?
- Are there any significant differences in the scores of test anxiety and its components for students with vision impairment and those with intellectual disability with respect to gender?
- What are students with vision impairment and those with intellectual disability able to achieve in the different dimensions of self-concept and why?
- What are the reasons for high or low test anxiety in students with vision impairment and those with intellectual disability and what strategies could help these students to stay relaxed during tests?

- What is the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on these students' problem solving skills, family, social and academic lives?
- What is the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on these students' test anxiety?

This study was not designed to compare the self-concept, test anxiety and support services findings between the two disability groups- vision impairment and intellectual disability. The two groups are distinct and unique in their characteristics and therefore, a comparison of the findings was inappropriate and not undertaken. The results for the two cohorts have been reported separately.

In view of the recognition, acceptance and inclusion of the different and multiple dimensions of self-concept, the present research was guided by the Shavelson et al. (1976) and Marsh and Shavelson (1985) models of self-concept and other recent research studies (Al-Zyoudi, 2007; Bolat et al., 2011; Duvdevany, 2002; Halder & Datta, 2012a; Lo'pez-Justicia & del Carmen Pichardo, 2001; Tracey & Marsh, 2002). Similarly, to substantiate the worry (cognitive thoughts) and emotional (physical reactions) states of test anxiety used in this study, the Spielberger and Vagg (1995) model of test anxiety formed the basis for this aspect of the investigation.

This project was conducted in two Stages namely Stage 1 and Stage 2. In Stage 1, the Tennessee Self-Concept Scale: Second Edition and the Test Anxiety Inventory were administered to students (females and males) with vision impairment and those with

intellectual disability to determine their self-concept and test anxiety scores on the different dimensions and components. These questionnaires also investigated whether there were any significant differences in self-concept scores across the different dimensions and test anxiety scores across the components with respect to gender in the two disability cohorts studied. In Stage 2, interviews with specific students with vision impairment and those with intellectual disability, their parents and teachers were conducted to understand what students with vision impairment and those with intellectual disability were able to accomplish in the different dimensions of self-concept and why self-concepts and test anxiety were low or high in these students under investigation. Interviews were conducted with the above three groups of participants to also study the influence of the support services on the problem solving skills, family, social and academic lives and test anxiety of the students with vision impairment and those with intellectual disability.

## **9.2 Findings**

In summarizing and discussing the findings of this study, answers are provided to the eight research questions advanced in Chapter 1. The research questions are not discussed in the order of data gathering as mentioned in Chapter 1. Here, they are discussed in relation to the topic concerned, self-concept, test anxiety and support services.

### **Research Question 1**

**What are the scores of self-concept and its dimensions for the female and male students with vision impairment and those with intellectual disability in South Australia?**

The exact self-concept T-scores are reported in detail in Chapter 5, but they are restated here in broader terms to provide a more holistic picture across the dimensions of self-concept for females and males with vision impairment and those with intellectual disability.

The self-concept scores (high/ average/ low) across the Physical, Moral, Personal, Family, Social, Academic and Total self-concepts for the female and male students with vision impairment are represented in Table 9.1 below:

**Table 9.1 Frequency of T-scores across self-concept dimensions for female and male students with vision impairment (N=25)**

Dimensions of self-concept	Female (N=13)			Male (N=12)			Total (N=25)		
	High	Average	Low	High	Average	Low	High	Average	Low
<b>Physical</b>	-	23%	77%	-	-	100%	-	11.5%	88.5%
<b>Moral</b>	-	15%	85%	-	17%	83%	-	16%	84%
<b>Personal</b>	-	8%	92%	-	-	100%	-	4%	96%
<b>Family</b>	-	31%	69%	-	50%	50%	-	40.5%	59.5%
<b>Social</b>	-	31%	69%	-	17%	83%	-	24%	76%
<b>Academic</b>	-	54%	46%	-	25%	75%	-	39.5%	60.5%
<b>Total *</b>	-	15%	85%	-	-	100%	-	7.5%	92.5%

\*Total Self-Concept for each student is calculated as the sum of the dimensions 'raw to T' scores and not the arithmetical average of the individual dimensions

Table 9.1 denotes the overall pattern of responses across the different dimensions of self-concept for students with vision impairment. There were no scores in the high

range across the dimensions. In the case of the male students, the highest frequency of average scores was in the family self-concept (half) and the next highest frequency of average scores (but only half as frequently as family) was in the academic self-concept. For male students, the self-concept dimensions with the highest frequency of low scores were physical and personal. In case of the female students, the highest average scores were in the academic, followed equally by social and family self-concept dimensions. For female students, the highest numbers of low scores were in the personal and moral self-concept dimensions.

Overall, (male and female students combined) the two dimensions of self-concept with highest average frequency was family and academic and the two dimensions of self-concept with highest low frequency was personal and physical. In addition, across male and female students there seems to be a pattern of more frequent average scores in the last three self-concept dimensions, as compared to the first three dimensions.

The self-concept scores (high/ average/ low) across the Physical, Moral, Personal, Family, Social, Academic and Total self-concepts for the female and male students with intellectual disability are represented in Table 9.2 below:

**Table 9.2 Frequency of T-scores across self-concept dimensions for female and male students with intellectual disability (N=20)**

Dimensions of self-concept	Female (N=10)			Male (N=10)			Total (N=20)		
	High	Average	Low	High	Average	Low	High	Average	Low
<b>Physical</b>	-	20%	80%	-	-	100%	-	10%	90%
<b>Moral</b>	-	40%	60%	-	20%	80%	-	30%	70%
<b>Personal</b>	-	20%	80%	-	10%	90%	-	15%	85%
<b>Family</b>	-	50%	50%	-	30%	70%	-	40%	60%
<b>Social</b>	-	50%	50%	-	10%	90%	-	30%	70%
<b>Academic</b>	-	50%	50%	-	20%	80%	-	35%	65%
<b>Total *</b>	-	30%	70%	-	-	100%	-	15%	85%

\*Total Self-Concept for each student is calculated as the sum of the dimensions 'raw to T' scores and not the arithmetical average of the individual dimensions

Table 9.2 indicates the overall pattern of responses across the different dimensions of self-concept for students with intellectual disability. There were no scores in the high range across the different dimensions of self-concept. In case of the male students, the highest frequency of average scores was in the family self-concept. For male students, the self-concept dimensions with the highest frequency of low scores were physical followed equally by personal and social. In case of the female students, the highest average scores were in the family, social and academic self-concept dimensions (an

equal number in the three dimensions respectively). For female students, the highest numbers of low scores were in the physical and personal self-concept dimensions.

Overall, (male and female students combined) the two dimensions of self-concept with highest average frequency was family followed by academic and the two dimensions of self-concept with highest low frequency was physical followed by personal.

### **Research Question 3**

**Are there any significant differences in the scores of self-concept and its dimensions for students with vision impairment and those with intellectual disability with respect to gender?**

There were no significant differences between female and male students with vision impairment in the Physical, Moral, Personal, Family, Social and Academic self-concepts and thus Total self-concept ( $p>0.05$ ).

There were no significant differences between female and male students with intellectual disability in the Physical, Moral, Personal, Academic and Total self-concepts ( $p>0.05$ ). However, there were significant differences between female and male students with intellectual disability in the Family and Social self-concept dimensions ( $p<0.05$ ). The female students with intellectual disability were found to be significantly higher than the male students with intellectual disability in the Family and Social self-concept dimensions respectively.

### **Research Question 5**

**What are students with vision impairment and those with intellectual disability able to achieve in the different dimensions of self-concept and why?**



In exploring this research question, the interviewees indicated that students with vision impairment and those with intellectual disability could not achieve well in the different dimensions of self-concept and went on to explain in detail the reasons behind this. The interview responses revealed a number of factors responsible for low self-concept across the different dimensions for students with vision impairment. Notable among them were students' vision impairment, negative emotions and mood swings experienced by students, lack of modifications in the learning environment, poor management of tasks, bullying, inadequate family support, single or step-parent households, inability to travel independently due to the absence of students' own transport and level and kind of impairment (whether low vision or blind and congenital or acquired) contributed to low self-concepts in students with vision impairment.

A number of key reasons were identified for low self-concepts among students with intellectual disability. One related to the degree and severity of impairment suffered (the greater the impairment the lower the self-concept). Another involved personal factors such as lack of independence, cognitive deficits, depression and mood swings. Indifferent or negative behaviour demonstrated by non-disabled mainstream peers, such as lack of support or even outright bullying represents another set of reasons for low self-concept. School factors such as inexperienced and unskilled teachers, lack of confidence and exclusion from mainstream classes, as well as family factors such as inadequate support at home and step-parent households, also contributed to low self-concept. As a result of such influences these students experienced failure too often and too early and they took more time and required extra effort to learn and grasp new concepts.

## Research Question 2

**What are the scores of test anxiety and its components for the female and male students with vision impairment and those with intellectual disability in South Australia?**

The exact test anxiety T-scores are presented in Chapter 5 but are reported here more generally to establish a holistic picture across the components of test anxiety for females and males with vision impairment and those with intellectual disability.

The scores (high/ moderate/ low) on the total test anxiety, worry and emotionality components for female and male students with vision impairment are presented in Table 9.3 below:

**Table 9.3 Frequency of T-scores across test anxiety components for female and male students with vision impairment (N=25)**

Components of test anxiety	Female (N=13)			Male (N=12)			Total (N=25)		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
<b>Worry</b>	77%	15.4%	7.7%	83%	-	17%	80%	7.7%	12.3%
<b>Emotionality</b>	92%	-	8%	83.3%	-	16.7%	87.7%	-	12.3%
<b>Total test anxiety *</b>	69%	23%	8%	66.7%	16.7%	16.7%	67.9%	19.8%	12.3%

\*Total test anxiety for each student is not just the arithmetic total of worry and emotionality scores but an addition of scores obtained in another 4 items 'raw to T' scores

Table 9.3 indicates the overall pattern of responses across the different components of test anxiety for students with vision impairment. In the case of the male students, the highest frequency of high scores was in the emotionality and worry components respectively. In case of the female students, the highest frequency of high scores was in

the emotionality followed by worry components. This shows that overall, (male and female students combined) the majority of the students with vision impairment experienced physical reactions (emotionality) together with cognitive fears (worry) when faced with a testing situation; however, physically fearful symptoms were slightly higher in comparison to cognitive fears in students with vision impairment.

The scores (high/ moderate/ low) on the total test anxiety, worry and emotionality components for female and male students with intellectual disability are depicted in Table 9.4 below:

**Table 9.4 Frequency of T-scores across test anxiety components for female and male students with intellectual disability (N=20)**

Components of test anxiety	Female (N=10)			Male (N=10)			Total (N=20)		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
<b>Worry</b>	90%	10%	-	80%	10%	10%	85%	10%	5%
<b>Emotionality</b>	90%	10%	-	70%	20%	10%	80%	15%	5%
<b>Total test anxiety *</b>	80%	20%	-	40%	60%	-	60%	40%	-

\*Total test anxiety for each student is not just the arithmetic total of worry and emotionality scores but an addition of scores obtained in another 4 items 'raw to T' scores

Table 9.4 presents the overall pattern of responses across the different components of test anxiety for students with intellectual disability. In the case of the male students, the highest frequency of high scores was in the worry followed by the emotionality component respectively. In the case of the female students, the highest frequency of high scores was in the worry and emotionality components. These findings reveal that overall, (male and female students combined) the majority of the students with

intellectual disability experienced cognitive fears (worry) together with physical reactions (emotionality) in a testing situation or before submitting any assignment; however cognitive fears were slightly higher than bodily symptoms for students with intellectual disability.

#### **Research Question 4**

**Are there any significant differences in the scores of test anxiety and its components for students with vision impairment and those with intellectual disability with respect to gender?**

There were no significant differences between female and male students with vision impairment in the Total Test Anxiety, Worry and Emotionality components ( $p > 0.05$ ).

There were significant differences between female and male students with intellectual disability in the Total Test Anxiety, Worry and Emotionality components ( $p < 0.05$ ). The female students with intellectual disability were found to be significantly higher than the male students with intellectual disability in the Total Test Anxiety, Worry and Emotionality.

#### **Research Question 6**

**What are the reasons for high or low test anxiety in students with vision impairment and those with intellectual disability and what strategies could help these students to stay relaxed during tests?**

The reasons for high test anxiety in students with vision impairment and those with intellectual disability along with some practical strategies cited by the three groups of participants are outlined in the following sections.

Students' vision impairment, high standards and unrealistic expectations in a test set by students themselves, lack of preparation and confidence, inadequate testing techniques, improper test format and lack of modifications in a testing situation were identified to be the main reasons for high test anxiety in students with vision impairment. Some of the common strategies provided for students with vision impairment to stay relaxed during tests were more learning in a weak subject area, a greater amount of practice, repetition and drilling, additional reading, practising relaxation and meditation techniques, providing students with extra time and proper resources and increasing the frequency of tests.

The main reasons that were identified for high test anxiety in students with intellectual disability were lack of support from schools and teachers, lack of concentration and more time needed by these students for preparation, greater fear of failure experienced by these students and students' intellectual disability. Some of the common strategies provided for students with intellectual disability to stay relaxed during tests were constant practice and over preparing students', learning to calm down and maintain one's cool, taking deep breaths, meditation, maintaining structure and routines and devising specific study skills for students with intellectual disability.

### **Research Question 7**

**What is the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on students' problem solving skills, family, social and academic lives?**

The interview responses from the three groups of participants-students with vision impairment, their parents and teachers revealed that the support services positively influenced students' problem solving skills, their social behaviour and their academic

learning. Although most students with vision impairment felt that the support services had no influence on their family relationships, their parents and teachers, considered it had helped in supporting students' family lives.

Whereas students with intellectual disability and their parents found that the support services did not have any major influence on students' abilities to solve problems, or on their social and family lives; teachers, on the contrary, considered that student's problem solving had been helped by the support given, their social life to a more limited extent, however, their family life was not influenced by the support. According to students with intellectual disability and their teachers, the support influenced positively on academic lives of students; however, parents considered a limited influence of the support on this aspect as well.

### **Research Question 8**

**What is the influence of the support services provided in schools for students with vision impairment and those with intellectual disability on students' test anxiety?**

The majority of the students with vision impairment, their parents and all teachers established that the support services positively influenced and assisted students with vision impairment to take a test or examination better by reducing the unnecessary stress and anxiety which these students would otherwise have to go through. Therefore, the support services were seen as a positive influence on the test anxiety of students with vision impairment.

The majority of the students with intellectual disability identified some limited positive influence of the support on their test taking abilities. However, the majority of the parents argued that the support had no influence on these students' abilities to take a test/ assignment better. Two of the teachers articulated that the support services helped

students with intellectual disability to be at ease and reduce their tension before submitting an assignment; another two teachers further substantiated that in spite of the support services rendered to students with intellectual disability, they were found to undergo stress, anxiety and worry before taking a test or submitting an assignment in class. Therefore, in relation to the influence of the support services on students' test anxiety; it appeared to help students with intellectual disability to a minimal degree.

Thus, the findings discussed above leads to three strong and clear conclusions. Firstly, consistently low scores were obtained by the majority of students with vision impairment and those with intellectual disability in the different dimensions of self-concept. Secondly, high scores were obtained by the majority of students with vision impairment and those with intellectual disability in the different components of test anxiety. Thirdly, the teachers' interview responses have most often been in contrast to the responses provided by students with vision impairment and those with intellectual disability and their parents across all the themes used for the interview analysis.

The following sections present implications for educational policy, practice and future research and concluding comments.

### **9.3 Implications for Policy and Practice**

The findings of this study have the potential to influence teaching practices and drive future investigations relating to students in each of the two disability cohorts-vision impairment and/ or intellectual disability.

The findings revealed that the majority of the students with vision impairment and those with intellectual disability had low total self-concepts. For students with low self-

concepts, interventions that include parents and teachers can be especially effective (Fitts & Warren, 2003). The findings of this study indicate that parent involvement remains useful and a teacher who establishes more personal contact may also prove effective.

Students with vision impairment and those with intellectual disability obtained the highest frequency of average (normal) scores (refer tables 9.1 and 9.2) in the family and academic self-concept dimensions. This indicates the positive influence of the two groups- family and school on these students. Students with vision impairment and those with intellectual disability obtained the highest frequency of low scores (refer tables 9.1 and 9.2) in the personal and physical self-concept dimensions. This is indicative that these students need adequate support and assistance to increase their low sense of worth which is often related primarily to a weak sense of identity. These students also need a more directed, planned and structured routine of activities in relation to maintaining their physical lives which needs to be imbibed from inception years in school. For those students with vision impairment or intellectual disability with disturbed physical self-concepts, self-acceptance can be a particularly important part of positive change. The findings from this study suggest that physical exercises, relaxation, breathing, or stretching movements are often beneficial to these students.

Findings from the research indicate that students with vision impairment and those with intellectual disability require a structured social skills program to assist them to develop a flexible repertoire of appropriate role behaviours, and learn the procedure for joining groups, interacting in groups, and conforming to group rules. They also need to understand what is important and meaningful to the group, and learn their rules for



socializing and making friends. Students with vision impairment and those with intellectual disability have to deal with that they are perceived as different from their peers. Social skills training to gain skill in making eye contact, body posture, interpret body language, appropriate ways to initiate interactions, engaging in small talk, assertive training to gain expertise in articulating desires and coping with the consequences, appropriate self-disclosure and appropriate boundary setting all may provide excellent ways for these students to begin to meet goals related to improving relationships and social interactions. Schools need to develop a whole school approach to social skills training and social awareness for these students.

Findings from the research indicate that although students with vision impairment and those with intellectual disability demonstrated a general readiness and willingness for new learning, they were found to lack in academic areas due to their disability. These students also experienced greater levels of stress and anxiety before and during a testing situation or submitting an assignment. The physical reactions (emotionality) were found to be higher than the cognitive concerns (worry) for students with vision impairment and the reverse for students with intellectual disability. Students with vision impairment and those with intellectual disability required extra help, support and assistance from mainstream and support teachers, peers and the school Counsellors. Some of the common strategies and practices that emerged from this research for these students to stay relaxed during tests should be included as part of these students daily routine in schools.

In relation to the support services provided to students with vision impairment and those with intellectual disability, an important suggestion for schools and teachers was that the support services should be provided to these students in confidence as most of the students

were embarrassed to avail themselves of these services in the presence of their non-disabled peers and this had a negative influence on students' self-concept. Clearly, the range and magnitude of the support services should be extended to ensure that students make optimum use of it.

The rich data set generated from this project will benefit teachers, special educators, policy makers and a range of professionals in the education and special education sector to raise awareness of the many areas these students experience problems in and which could serve as a potential catalyst for such students. Professional development for teachers which focuses on deepening their understanding about the condition of any students' disability, and increased awareness of the nature of vision impairment and/ or intellectual disability and the educational implications of these disabilities must be a priority for teachers, families, students with vision impairment and those with intellectual disability, as well as other non-disabled peers and society in general.

## **9.4 Implications for Future Research**

The present research study investigated the self-concept, test anxiety and support services among students with vision impairment and those with intellectual disability in South Australia. However, students with other kinds of disabilities (e.g. students with hearing impairments, learning disabilities, physical impairments, autism and attention deficit hyperactive disorder) commonly found in the classrooms in Australia were not included in the research. Similar facets should be studied for students with other disabilities as well.

In addition, the present research examined the influence of the support services on students with vision impairment and those with intellectual disability' problem solving

skills, family, social and academic lives and test anxiety. Research needs to be conducted on the influence of the support services on these students' other aspects of life as well. Moreover, this research was conducted in South Australia; there is a need to replicate this investigation in the other states of Australia in order to verify the validity of these findings.

## **9.5 Concluding Comment**

In this research, self-concept and test anxiety were used as key variables to unlock understanding of the many social, family, personal, emotional and educational disadvantages that were found in these students with vision impairment and those with intellectual disability. The focus on the relatively unexplored area of the influence of the support services on these students' problem solving skills, family, social and academic lives and test anxiety has opened the way for further investigation. Future intensive investigation is required to ensure that educational and support services adequately meet the needs of these students and provide them with the knowledge and skills to effectively interact in society and achieve the highest quality of life possible. In the decades ahead it is important that research continues in this field.

**APPENDIX A**

**Tennessee Self-Concept Scale: (TSCS:2)**

Name of Participant.....

Age.....

Gender Male  Female

Your level of Education Completed

Primary  Secondary

Year Level.....

Nationality.....

**LEGEND USED:**

1 = Always False

2 = Mostly False

3 = Partly False and Partly True

4 = Mostly True

5 = Always True

1. I am an attractive person.

1	2	3	4	5
---	---	---	---	---

2. I am an honest person.

1	2	3	4	5
---	---	---	---	---

3. I am a member of a happy family.

1	2	3	4	5
---	---	---	---	---

4. I wish I could be more trustworthy.

1	2	3	4	5
---	---	---	---	---

5. I do not feel at ease with other people.

1	2	3	4	5
---	---	---	---	---

6. Math is hard for me.

1	2	3	4	5
---	---	---	---	---

7. I am a friendly person.

1	2	3	4	5
---	---	---	---	---

8. I am satisfied with my moral behaviour.

1	2	3	4	5
---	---	---	---	---

9. I am not as smart as the people around me.

1	2	3	4	5
---	---	---	---	---

10. I do not act the way my family thinks I should.

1	2	3	4	5
---	---	---	---	---

11. I am just as nice as I should be.

1	2	3	4	5
---	---	---	---	---

12. It is easy for me to learn new things.

1	2	3	4	5
---	---	---	---	---

13. I am satisfied with my family relationships.

1	2	3	4	5
---	---	---	---	---

14. I am not the person I would like to be.

1	2	3	4	5
---	---	---	---	---

15. I understand my family as well as I should.

1	2	3	4	5
---	---	---	---	---

16. I despise myself.

1	2	3	4	5
---	---	---	---	---

17. I don't feel as well as I should.

1	2	3	4	5
---	---	---	---	---

18. I do well at math.

1	2	3	4	5
---	---	---	---	---

19. I am satisfied to be just what I am.

1	2	3	4	5
---	---	---	---	---

20. I get along well with other people.

1	2	3	4	5
---	---	---	---	---

21. I have a healthy body.

1	2	3	4	5
---	---	---	---	---

22. I consider myself a sloppy person.

1	2	3	4	5
---	---	---	---	---

23. I am a decent sort of person.

1	2	3	4	5
---	---	---	---	---

24. I try to run away from my problems.

1	2	3	4	5
---	---	---	---	---

25. I am a cheerful person.

1	2	3	4	5
---	---	---	---	---

26. I am a nobody.

1	2	3	4	5
---	---	---	---	---



27. My family would always help me with any kind of trouble.

1	2	3	4	5
---	---	---	---	---

28. I get angry sometimes.

1	2	3	4	5
---	---	---	---	---

29. I am full of aches and pains.

1	2	3	4	5
---	---	---	---	---

30. I am a sick person.

1	2	3	4	5
---	---	---	---	---

31. I am a morally weak person.

1	2	3	4	5
---	---	---	---	---

32. Other people think I am smart.

1	2	3	4	5
---	---	---	---	---

33. I am a hateful person.

1	2	3	4	5
---	---	---	---	---

34. I am losing my mind.

1	2	3	4	5
---	---	---	---	---

35. I am not loved by my family.

1	2	3	4	5
---	---	---	---	---

36. I feel that my family doesn't trust me.

1	2	3	4	5
---	---	---	---	---

37. I am not good at the work I do.

1	2	3	4	5
---	---	---	---	---

38. I am mad at the whole world.

1	2	3	4	5
---	---	---	---	---

39. I am hard to be friendly with.

1	2	3	4	5
---	---	---	---	---

40. Once in a while I think of things too bad to talk about.

1	2	3	4	5
---	---	---	---	---

41. Sometimes when I am not feeling well, I am cross.

1	2	3	4	5
---	---	---	---	---

42. I am neither too fat nor too thin.

1	2	3	4	5
---	---	---	---	---

43. I'll never be as smart as other people.

1	2	3	4	5
---	---	---	---	---

44. I like to work with numbers.

1	2	3	4	5
---	---	---	---	---

45. I am as sociable as I want to be.

1	2	3	4	5
---	---	---	---	---

46. I have trouble doing the things that are right.

1	2	3	4	5
---	---	---	---	---

47. Once in a while I laugh at a dirty joke.

1	2	3	4	5
---	---	---	---	---

48. I should have more sex appeal.

1	2	3	4	5
---	---	---	---	---

49. I shouldn't tell so many lies.

1	2	3	4	5
---	---	---	---	---

50. I can't read very well.

1	2	3	4	5
---	---	---	---	---

51. I treat my parents as well as I should.

1	2	3	4	5
---	---	---	---	---

52. I am too sensitive about the things people in my family say.

1	2	3	4	5
---	---	---	---	---

53. I should love my family more.

1	2	3	4	5
---	---	---	---	---

54. I am satisfied with the way I treat other people.

1	2	3	4	5
---	---	---	---	---

55. I ought to get along better with people.

1	2	3	4	5
---	---	---	---	---

56. I gossip a little at times.

1	2	3	4	5
---	---	---	---	---

57. Sometimes I feel like swearing.

1	2	3	4	5
---	---	---	---	---

58. I take good care of myself physically.

1	2	3	4	5
---	---	---	---	---

59. I try to be careful about my appearance.

1	2	3	4	5
---	---	---	---	---

60. I am true to my religion in my everyday actions.

1	2	3	4	5
---	---	---	---	---

61. I sometimes do very bad things.

1	2	3	4	5
---	---	---	---	---

62. I can always take care of myself in any situation.

1	2	3	4	5
---	---	---	---	---

63. I do as well as I want to at almost any job.

1	2	3	4	5
---	---	---	---	---

64. I feel good most of the time.

1	2	3	4	5
---	---	---	---	---

65. I take a real interest in my family.

1	2	3	4	5
---	---	---	---	---

66. I try to understand the other person's point of view.

1	2	3	4	5
---	---	---	---	---

67. I'd rather win a game than lose one.

1	2	3	4	5
---	---	---	---	---

68. I am not good at games and sports.

1	2	3	4	5
---	---	---	---	---

69. I look fine just the way I am.

1	2	3	4	5
---	---	---	---	---

70. I do not know how to work well.

1	2	3	4	5
---	---	---	---	---

71. I have trouble sleeping.

1	2	3	4	5
---	---	---	---	---

72. I do what is right most of the time.

1	2	3	4	5
---	---	---	---	---

73. I am no good at all in social situations.

1	2	3	4	5
---	---	---	---	---

74. I solve my problems quite easily.

1	2	3	4	5
---	---	---	---	---

75. I am a bad person.

1	2	3	4	5
---	---	---	---	---

76. I am satisfied with my relationship with God.

1	2	3	4	5
---	---	---	---	---

77. I quarrel with my family.

1	2	3	4	5
---	---	---	---	---

78. I see something good in everyone I meet.



1	2	3	4	5
---	---	---	---	---

79. I find it hard to talk with strangers.

1	2	3	4	5
---	---	---	---	---

80. Sometimes I put off until tomorrow what I ought to do today.

1	2	3	4	5
---	---	---	---	---

81. It's easy for me to understand what I read.

1	2	3	4	5
---	---	---	---	---

82. I have a lot of self-control.

1	2	3	4	5
---	---	---	---	---

**APPENDIX B**

**The Test Anxiety Inventory**

I feel confident and relaxed while taking tests.

1	2	3	4
Almost never			Almost always

While taking final examinations I have an uneasy upset feeling.

1	2	3	4
Almost never			Almost always

Thinking about the grade I may get in a course interferes with my work on tests.

1	2	3	4
Almost never			Almost always

I freeze up on final exams.

1	2	3	4
Almost never			Almost always

During exams I find myself wondering whether I will ever get through school.

1	2	3	4
Almost never			Almost always

The harder I work at taking a test, the more confused I get.

1	2	3	4
Almost never			Almost always

Thoughts of doing poorly interfere with my concentration on tests.

1	2	3	4
Almost never			Almost always

I feel very jittery when taking an important test.

1	2	3	4
Almost never			Almost always

Even when I am well prepared for a test, I feel very anxious about it.

1	2	3	4
Almost never			Almost always

I start feeling very uneasy just before getting a test paper back.

1	2	3	4
Almost never			Almost always

During tests I feel very tense.

1	2	3	4
Almost never			Almost always

I wish examinations did not bother me so much.

1	2	3	4
Almost never			Almost always

During important exams I am so tense that my stomach gets upset.

1	2	3	4
Almost never			Almost always

I seem to defeat myself while working on important tests.

1	2	3	4
Almost never			Almost always

I feel very panicky when I take an important exam.

1	2	3	4
Almost never			Almost always

If I were to take an important exam, I would worry a great deal about taking it.

1	2	3	4
Almost never			Almost always

During tests I find myself thinking about the consequences of failing.

1	2	3	4
Almost never			Almost always

I feel my heart beating very fast during important tests.

1	2	3	4
Almost never			Almost always

As soon as an exam is over I try to stop worrying about it, but I just cannot.

1	2	3	4
Almost never			Almost always

During a course examination I get so nervous that I forget facts I really know.

1	2	3	4
Almost never			Almost always

## APPENDIX C

### Letter to the Principal



SCHOOL OF EDUCATION  
FACULTY OF PROFESSIONS  
POULOMEE DATTA  
PHD. CANDIDATE  
LEVEL 8, 10 PULTENEY STREET  
THE UNIVERSITY OF ADELAIDE  
SA 5005  
AUSTRALIA  
TELEPHONE +61 8 8313 6064  
FACSIMILE +61 8 8313 3604  
poulomee.datta@adelaide.edu.au  
CRICOS Provider Number 00123M

Respected Sir/Madam,

I am a PhD. student at the School of Education, University of Adelaide. My research project involves the studying of self-concept and test anxiety in adolescents and adults who are vision impaired or intellectually disabled in South Australia and the influence of the support services on these students. I will be contacting regular and special schools under DECS in South Australia to ask if they are prepared to allow me to gather data from their students, teachers and parents.

I would like to include your school in this research because it is under DECS. This research would involve students with vision impairment and/or intellectual disabilities, their parents and teachers. Some of the students and teachers would be selected for an interview and the duration of the interview would be no longer than 45 minutes. Parents will be sent home a questionnaire which they may choose to respond and return back to the researcher either through e-mail or mail.

With this letter I have attached the University of Adelaide and DECS research ethics clearance for this project, information sheet and consent forms for the respondents. I hope these documents will provide enough information for the school to make a positive decision regarding my request to conduct the research. All information relating to the project including participants' names and their responses will be kept confidential.

This project aims to make a unique and valuable contribution to the field of special education. Thus, the involvement of your School and its members is very important and integral to this study.

If you have any questions please do not hesitate to contact me or my Principal Supervisor, Dr. Christine Velde.

Yours sincerely,

Poulomee Datta,  
PhD. Student  
(P) +61 8 8313-6064  
(M) 0422547177  
(E) poulomee.datta@adelaide.edu.au

Dr. Christine Velde  
Principal Supervisor  
(P) +61 8 8303-5561  
(M) 0403518025  
(E) christine.velde@adelaide.edu.au

## APPENDIX D

### Information Sheet

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SCHOOL OF EDUCATION

Level 8, 10 Pulteney Street, University of Adelaide, Adelaide SA 5005; Tel: (+618) 8303 5628, Fax: (+618) 8303 3604

#### RESEARCH PROJECT INFORMATION SHEET

Dear Student/Parent/Teacher,

I am a research scholar (PhD. student) in the School of Education at the University of Adelaide. I am presently undertaking research leading to the production of a thesis on the subject **Insights into self-concept and test anxiety: adolescents and young adults with either vision impairment or intellectual disabilities in South Australia**. I am interested in the participation of adolescents and young adults who are either vision impaired or intellectually disabled and enrolled in special schools, regular schools and TAFE Institutes in South Australia, their teachers and also parents.

The main goal of this research is to study the self-concept and test anxiety of the adolescents and adults who are either vision impaired or intellectually disabled in South Australia. It also aims to examine whether the support services have any influence on the self-concept and test anxiety of students who are either vision impaired or intellectually disabled. If successful, results from this study should provide psychologists, counselors, educational administrators and planners and special education policy makers a significant amount of useful information and a deeper understanding of the needs and problems faced by the students with special educational needs, who are in regular as well as special schools.

Students will be asked to complete a questionnaire in the specified timeframes during the class:

- Students' Questionnaire (with approximate time allocation for each section shown)
  - *General Information* items - 5 minutes
  - Items on self-concept - 20 minutes
  - Items on test anxiety - 10 minutes

Questionnaires will be collected by the researcher. Interviews will be held with specific students, their teachers and parents. The interviews with students and teachers will be 'face to face' semi-structured, it will be held during the school hours and it will be audio-taped, so that the researcher will be able to draw inferences about the support services in special and regular schools. The duration of student and teacher interviews will be no more than 45 minutes. Alternatively, if students and teachers are not comfortable for a face-to-face interview and do not have the time, then they may choose to opt for a written interview. The parents will be interviewed in the form of questionnaires sent to their e-mail or mailing address which they may choose to answer and return to the researcher.

Any information provided will be treated in the strictest confidence and neither names of participants nor schools will be individually identifiable in the resulting thesis, report or other publications. Participants are of course, entirely free to discontinue their participation at any time or to decline to answer particular questions in the study. Since participation is purely VOLUNTARY, non-participation will not affect students' academic progress or teachers' professional career in any way. If you choose to participate you will be helping me with my study.

In this project, I intend to make a recording of any student or teacher interviews. Therefore, I will seek the consent of the students and parents of students (where applicable), and teachers to record the interview, to use the recording for a transcription in preparing the thesis, report or other publications, on condition that names or identities will not be revealed. However, if you complete an interview and then decide you do not wish to participate in the study, you can contact me on the mobile number below and I will withdraw your response.

This research has been approved by the University of Adelaide Ethics Committee and the Department of Education and Children's Services.

If you are to take part, a Consent Form is attached for you to sign. Should you require additional information regarding this research, please contact me on my mobile 0422547177, or email [poulomee.datta@adelaide.edu.au](mailto:poulomee.datta@adelaide.edu.au)

Thank you for considering this request.

Kind Regards,

Poulomee Datta.



## APPENDIX E

### Easy Information Sheet

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SCHOOL OF EDUCATION

*Level 8, 10 Pulteney Street, University of Adelaide, Adelaide SA 5005; Tel: (+618) 8303 5628, Fax: (+618) 8303 3604*

#### RESEARCH PROJECT INFORMATION SHEET

Dear student,

##### **Who I am?**

I am Poulomee Datta, a PhD. student in the School of Education at the University of Adelaide. I am inviting you to participate in my research project if you wish to.

##### **What is my Research?**

My research is about:-

- the problems (if any) you face in your study, school and work
- the problems (if any) you face at your home
- the problems (if any) you face with your friends
- the problems (if any) you face in your life
- your comments about the support services that you receive/ received at school.

##### **What will be asked to do?**

I would like you to:-

- Complete a **Questionnaire** in one hour's time. More time will be given to you if you need it.
- You may have an **interview** with me

##### **Interview: -**

I will record your voice. The interview will take around 45 minutes. Personal questions will be asked to you in the interview. Your answers will be kept strictly confidential. You are free to withdraw from the interview any time.

##### **What are your rights?**

Your participation will be:-

- **VOLUNTARY** (You do not have to participate or answer any question that you don't like. If you do not participate it will not affect your progress in school.)
- **CONFIDENTIAL** (no-one will know your answers and your name and identity will not be told to anybody)

Your answers will be important to my study and help me to know you better. You will not have any personal benefit from this study. If you would like to ask me any questions, you can call me on my mobile number 0422547177.

Signed,

POULOME DATT

**APPENDIX F**

**Student Consent Form**

THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

STANDARD CONSENT FORM

FOR PEOPLE WHO ARE PARTICIPANTS IN A RESEARCH PROJECT

(for students over 18)

1. I, .....(please print name)

consent to take part in the research project entitled:

**“Insights into self-concept and test anxiety: students with vision impairment and those with intellectual disability in South Australia”**

Principal Researcher: Name: Poulomee Datta

E-mail: poulomee.datta@adelaide.edu.au

2. I acknowledge that I have read and understood the attached Information Sheet entitled:

**Research Project Information Sheet**

and understand that I am being asked to provide details of what is required of the participant.

3. Although I understand that the purpose of this research project is to study the self-concept, test anxiety of students, to examine whether the support services have any

influence on the self-concept and test anxiety of students, but I may not directly benefit by taking part in the research.

4. I understand that the information I provide will be kept confidential. Names will not be disclosed and personal results will not be divulged.
5. In case interviews will be needed, I understand that they will be audio recorded.
6. I understand that I am free to withdraw from the project at any time and that this will not affect my academic progress or relationship with the school, now or in the future.
7. I understand that there will be no payment for taking part in this study.
8. I am aware that I should retain a copy of this Consent Form, when completed, and the attached Information Sheet for future reference.
9. I consent to being involved in this project.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Name of student: \_\_\_\_\_

**APPENDIX G**

**Parent Consent Form**

THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

STANDARD CONSENT FORM

For Research to be Undertaken on a Child, and those in Dependant Relationships or Comparable Situations

*To be Completed by Parent or Guardian*

1. I, ..... (*please print name*)

consent to allow ..... (*please print name*)

to take part in the research project entitled:

**“Insights into self-concept and test anxiety: students with vision impairment and those with intellectual disability in South Australia”**

Principal Researcher: Name: Poulomee Datta

E-mail: poulomee.datta@adelaide.edu.au

2. I acknowledge that I have read and understood the attached Information Sheet entitled:

**Research Project Information Sheet**

and understand that my child is being asked to provide details of what is required of the participant.

3. Although I understand that the purpose of this research project is to study the self-concept, test anxiety of students, to examine whether the support services have any influence on the self-concept and test anxiety of students, but my child may not directly benefit by taking part in the research.
4. I understand that the information he/she provides will be kept confidential. Names will not be disclosed and personal results will not be divulged.
5. In case student interviews will be needed, I understand that they will be audio recorded.
6. In case parent interviews will be needed, I understand that a questionnaire will be sent to my mailing address or e-mail address which I may choose to complete and return to the researcher.
7. I understand that he/she is free to withdraw from the project at any time and that this will not affect his/her academic progress or relationship with the school, now or in the future.
8. I understand that there will be no payment for me or my child taking part in this study.
9. I am aware that I should retain a copy of this Consent Form, when completed, and the attached Information Sheet for future reference.
10. I consent to (my child) being involved in this project.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Relationship to child: \_\_\_\_\_

Name of child: \_\_\_\_\_

**APPENDIX H**

**Teacher Consent Form**

THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

STANDARD CONSENT FORM

FOR PEOPLE WHO ARE PARTICIPANTS IN A RESEARCH PROJECT

(for teachers in South Australia)

1. I, .....(please print name)

consent to take part in the research project entitled:

**“Insights into self-concept and test anxiety: students with vision impairment and those with intellectual disability in South Australia”**

Principal Researcher: Name: Poulomee Datta

E-mail: poulomee.datta@adelaide.edu.au

2. I acknowledge that I have read and understood the attached Information Sheet entitled:

**Research Project Information Sheet**

3. I have had the project, so far as it affects me, fully explained to my satisfaction by the research worker. My consent is given freely.

4. Although I understand that the purpose of this research project is to study the self-concept, test anxiety of students, to examine whether the support services have any influence on the self-concept and test anxiety of students, it has also been explained that my involvement may not be of any benefit to me.
  
5. I have been informed that, while information gained during the study may be published, I will not be identified and my personal results will not be divulged.
  
7. When the interview will be held, I understand that it will be audio recorded.
  
8. I understand that I am free to withdraw from the project at any time and that this will not affect my professional progress, now or in the future.
  
9. I understand that there will be no payment for taking part in this study.
  
10. I am aware that I should retain a copy of this Consent Form, when completed, and the attached Information Sheet for future reference.
  
11. I consent to being involved in this project.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Name of teacher: \_\_\_\_\_



**APPENDIX I**

**Easy Student Consent Form**

THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

CONSENT FORM

FOR PEOPLE WHO ARE PARTICIPANTS IN A RESEARCH PROJECT

(for students with mild intellectual disability over 18)

<p>1. I, .....(please print name)</p> <p>consent to take part in your PhD. research project.</p> <p>2. I have read and understood the 'Research Project Information Sheet'.</p> <p>3. The research project has been explained to me clearly. My consent is given freely.</p> <p>4. I was given the chance to have a member of my family or a friend present while the project was explained to me.</p> <p>6. I understand that my name, identity and answers will not be told to anybody.</p> <p>7. I understand that my voice will be recorded.</p>
--

8. I am free to withdraw from the project at any time.

9. I should keep a copy of this Consent Form, when completed, and the attached 'Research Project Information Sheet' with me.

.....  
.....

*(signature)*

*(date)*

**WITNESS**

I have explained to ..... *(name of subject)*

the nature of the research to be carried out. In my opinion she/he understood the explanation.

Status in Project: .....

Name: .....

.....

*(signature)*

*(date)*

**APPENDIX J**

**Details of students with vision impairment who completed questionnaire schedule**

Stage identification	Gender	Age	Adolescent (1)/ Adult (2)	Type of Vision Impairment
VI-1	Female	17	1	Blind
VI-2	Male	15	1	Low vision
VI-3	Male	15	1	Low vision
VI-4	Female	22	2	Blind
VI-5	Female	24	2	Blind
VI-6	Female	22	2	Low vision
VI-7	Male	22	2	Low vision
VI-8	Male	22	2	Blind
VI-9	Female	21	2	Low vision
VI-10	Female	17	1	Low vision
VI-11	Male	17	1	Blind
VI-12	Female	15	1	Low vision
VI-13	Male	17	1	Blind
VI-14	Female	17	1	Right eye-blind

				Left eye- low vision
VI-15	Male	25	2	Blind
VI-16	Male	16	1	Low vision
VI-17	Male	16	1	Blind
VI-18	Female	15	1	Low vision
VI-19	Female	15	1	Blind
VI-20	Male	23	2	Blind
VI-21	Male	22	2	Blind
VI-22	Male	24	2	Low vision
VI-23	Female	25	2	Low vision
VI-24	Female	23	2	Low vision
VI-25	Female	24	2	Low vision

## APPENDIX K

### Details of students with intellectual disability who completed questionnaire schedule

Stage 1 identification	Gender	Age	Adolescent (1)/ Adult (2)
ID-1	Female	17	1
ID-2	Female	17	1
ID-3	Female	17	1
ID-4	Female	16	1
ID-5	Female	16	1
ID-6	Female	24	2
ID-7	Male	16	1
ID-8	Male	15	1
ID-9	Male	22	2
ID-10	Male	23	2
ID-11	Male	15	1
ID-12	Male	17	1
ID-13	Male	17	1
ID-14	Female	25	2
ID-15	Female	23	2
ID-16	Female	24	2
ID-17	Female	25	2
ID-18	Male	22	2
ID-19	Male	25	2
ID-20	Male	24	2

**APPENDIX L**

**Scoring Worksheet**

NOTE:

This appendix is included on pages 361-363 of the print copy of the thesis held in the University of Adelaide Library.

## **APPENDIX M**

### **Profile Sheet**

NOTE:

This appendix is included on page 364 of the print copy of the thesis held in the University of Adelaide Library.

**APPENDIX N**

**Conversion from raw to normalized T-scores for Worry, Emotionality and Total Test Anxiety**

**WORRY**

College and high schools students

Raw Score	College Undergrads		College Freshmen		Community College		High School		Raw Score
	M	F	M	F	M	F	M	F	
32	87	81	90	87	83	79	81	76	32
31	85	79	88	84	81	77	79	74	31
30	83	77	86	82	79	75	77	72	30
29	81	76	84	80	77	74	75	71	29
28	79	74	81	78	75	72	73	69	28
27	77	72	79	76	73	70	71	67	27
26	75	70	77	74	72	68	70	66	26
25	73	68	75	72	70	67	68	64	25
24	71	67	72	69	68	65	66	62	24
23	69	65	70	67	66	63	64	60	23
22	67	63	68	65	64	61	62	59	22
21	65	61	65	63	62	59	60	57	21
20	63	59	63	61	60	58	58	55	20
19	61	57	61	59	59	56	56	53	19
18	59	56	59	57	57	54	55	52	18
17	57	54	56	54	55	53	53	50	17
16	55	52	54	52	53	51	51	48	16
15	53	50	52	50	51	49	49	46	15
14	51	48	49	48	49	47	47	45	14
13	49	47	47	46	47	45	45	43	13
12	47	45	45	44	46	43	43	41	12
11	45	43	43	42	44	42	41	39	11
10	43	41	40	39	42	40	39	38	10
9	41	40	38	37	40	38	38	36	9
8	39	38	36	35	38	36	36	34	8



## EMOTIONALITY

College and high schools students

Raw Score	College Undergrads		College Freshmen		Community College		High School		Raw Score
	M	F	M	F	M	F	M	F	
32	77	71	82	76	82	73	78	72	32
31	75	69	80	74	80	71	76	71	31
30	73	68	78	72	78	70	74	69	30
29	72	66	76	79	76	68	73	67	29
28	70	64	74	69	74	66	71	65	28
27	68	63	72	67	72	65	69	64	27
26	66	61	70	65	70	63	67	62	26
25	64	60	68	63	68	61	65	60	25
24	63	58	66	61	66	59	64	59	24
23	61	56	63	59	63	58	62	57	23
22	59	55	61	57	61	56	60	55	22
21	57	53	59	55	59	54	58	54	21
20	56	52	57	54	57	53	56	52	20
19	54	50	55	52	55	51	54	50	19
18	52	49	53	50	53	49	53	48	18
17	50	47	51	48	51	47	51	47	17
16	48	45	49	46	49	46	49	45	16
15	47	44	47	44	47	44	47	43	15
14	45	42	45	42	45	42	45	42	14
13	43	41	43	41	43	40	43	40	13
12	41	39	40	39	41	39	42	38	12
11	40	37	38	37	39	37	40	37	11
10	38	36	36	35	37	35	38	35	10
9	36	34	34	33	35	34	36	33	9
8	34	33	32	31	33	32	34	31	8

## TOTAL TEST ANXIETY

College and high schools students

Raw Score	College Undergrads		College Freshmen		Community College		High School		Raw Score
	M	F	M	F	M	F	M	F	
80	84	78	87	82	86	79	81	76	80
79	83	77	86	81	85	78	81	76	79
78	83	76	85	80	84	77	80	74	78
77	82	76	85	79	83	76	79	74	77
76	81	75	83	79	83	76	78	73	76
75	80	74	83	78	82	75	78	72	75
74	79	74	82	77	81	74	77	71	74
73	79	73	81	76	80	73	76	71	73
72	78	72	80	75	79	73	75	70	72
71	77	71	79	74	78	72	74	69	71
70	76	71	78	73	77	71	74	69	70
69	75	70	77	73	77	70	73	68	69
68	75	69	76	72	76	70	72	67	68
67	74	68	75	71	75	69	71	66	67
66	73	68	74	70	74	68	70	66	66
65	72	67	73	69	73	67	70	65	65
64	71	66	73	68	72	67	69	64	64
63	71	66	72	67	71	66	68	63	63
62	70	65	71	66	71	65	67	63	62
61	69	64	70	65	70	64	67	62	61
60	68	63	69	64	69	64	66	61	60
59	67	63	68	63	68	63	65	60	59
58	67	62	67	63	67	62	64	60	58
57	66	61	66	62	66	61	63	59	57
56	65	60	65	62	66	60	63	58	56
55	64	60	64	61	65	60	62	58	55
54	63	59	63	60	64	59	61	57	54
53	63	58	63	59	63	58	60	56	53
52	62	57	62	58	62	57	59	55	52
51	61	57	61	57	61	57	59	55	51

Raw Score	College Undergrads		College Freshmen		Community College		High School		Raw Score
	M	F	M	F	M	F	M	F	
50	60	56	60	57	60	56	58	54	50
49	59	55	59	56	60	55	57	53	49
48	59	55	58	55	59	54	56	52	48
47	58	54	57	54	58	54	56	52	47
46	57	53	56	53	57	53	55	51	46
45	56	52	55	52	56	52	54	50	45
44	55	52	54	51	55	51	53	49	44
43	54	51	53	51	54	51	52	49	43
42	54	50	53	50	54	50	52	48	42
41	53	49	52	49	53	49	51	47	41
40	52	49	51	48	52	48	50	47	40
39	51	48	50	47	51	48	49	46	39
38	50	47	49	46	50	47	49	45	38
37	50	47	48	46	49	46	48	44	37
36	49	46	47	45	49	45	47	44	36
35	48	45	46	44	48	44	46	43	35
34	47	44	45	43	47	44	45	42	34
33	46	44	44	42	46	43	45	41	33
32	46	43	43	41	45	42	44	41	32
31	45	42	43	40	44	41	43	40	31
30	44	41	42	40	43	41	42	39	30
29	43	41	41	39	43	40	41	38	29
28	42	40	40	38	42	39	41	38	28
27	42	39	39	37	41	38	40	37	27
26	41	39	38	36	40	38	39	36	26
25	40	38	37	35	39	37	38	36	25
24	39	37	36	35	38	36	38	35	24
23	38	36	35	34	38	35	37	34	23
22	38	36	34	33	37	35	36	33	22
21	37	35	32	32	36	34	35	33	21
20	36	34	32	31	35	33	34	32	20

## **APPENDIX O**

### **Interview questions for the three groups of participants in each of the disability areas**

#### **INTERVIEW QUESTIONS FOR STUDENTS**

- 1) Do you maintain a physically healthy lifestyle? How do you achieve this?
- 2) Give examples (if any) of what you think is your good student behaviour and your bad student behaviour?
- 3) Tell me about yourself. How would you describe what kind of a person you are and why?
- 4) When you are having a problem, how do you go about solving it? Do you find problems difficult?
- 5) Tell me about your family.
- 6) Who do you like to mix with and why? What would help you to interact better with friends?
- 7) How do you go about learning new things and why?
- 8) Do you get anxious in tests? Describe your feelings when you take an assessment and why? What could help you to overcome this?
- 9) Has the support services in your school influenced you in your approach to solving problems? If so how?
- 10) Did the support have any impact on your family life?
- 11) How has the support you have received helped you in your school or social life?

12) Do you think that the support you received has helped you to be more independent and able to study and work better? If so, how and in what ways has it helped you?

13) Has the support helped you to take a test or assignment? If so, how?

#### INTERVIEW QUESTIONS FOR PARENTS

- 1) Does your child maintain a physically healthy lifestyle? If not, why?
- 2) Does your child engage in morally good or bad behaviour and why?
- 3) What kind of a person is your child and why?
- 4) How does your child go about solving problems? How can your child be helped to solve problems in a better way?
- 5) What kind of relationship do you and other members in your family have with your child and why?
- 6) How is your child's social life and why? What do you think would help your child to interact better with friends?
- 7) How does your child go about learning new things and why? What could help him/her in this respect?
- 8) Does your child get anxious during tests? Why and what could help your child to overcome this?
- 9) Do you think that the support services helped your child to tackle problems? If so, in what ways?
- 10) Have the support services had any impact on your child's family life?
- 11) Do you feel that the support services had an impact on your child's social life? If so, in what ways?

12) Do you think that the support services have helped your child to be more independent to study and work better? If so, how and in what ways has it helped?

13) Have the support services helped your child to take a test or assignment? If so, how?

#### INTERVIEW QUESTIONS FOR TEACHERS

- 1) Do students with vision impairment and those with intellectual disability able to maintain a physically healthy lifestyle? If not, why?
- 2) Do your students with vision impairment and those with intellectual disability demonstrate good or bad behaviour and why? What do you think could help students to improve their behaviour?
- 3) Describe your students with vision impairment and those with intellectual disability and why?
- 4) How do your students with vision impairment and those with intellectual disability go about solving problems? What could help them to solve problems in a better way?
- 5) What is the relationship between your students vision impairment and those with intellectual disability and their family members and why?
- 6) Describe your students with vision impairment and those with intellectual disability' social life with peers and why? What could help students in their social interaction?
- 7) How do your students with vision impairment and those with intellectual disability go about learning new things and why? What could help them in this respect?

- 8) Do your students with vision impairment and those with intellectual disability get anxious during tests and why? What in your opinion could help anxious students to overcome this feeling during tests?
- 9) How have the support services influenced students' abilities to tackle problems?  
If so, in what ways?
- 10) Have the support services had any impact on students' family life?
- 11) How have the support services influenced the students' social competence?
- 12) Do you think that the support services have helped your students to be more independent to study and work better? If so, how and in what ways has it helped them?
- 13) Have the support services helped your students with vision impairment and those with intellectual disability to take a test or assignment? If so, how?

## APPENDIX P

### Details of students with vision impairment' interview schedule

Stage identification	Gender	Adolescent (1)/Adult (2)	Type of Vision Impairment	Interview type
VI-3	Male	1	Low vision	Face-to-face
VI-1	Female	1	Blind	Face-to-face
VI-2	Male	1	Low vision	Face-to-face
VI-7	Male	2	Low vision	Face-to-face
VI-6	Female	2	Low vision	Face-to-face
VI-14	Female	1	Right eye-blind  Left eye- low vision	Face-to-face
VI-12	Female	1	Low vision	Face-to-face
VI-13	Male	1	Blind	Face-to-face
VI-11	Male	1	Blind	Face-to-face
VI-4	Female	2	Blind	Via E-mail
VI-5	Female	2	Blind	Via E-mail
VI-8	Male	2	Blind	Via E-mail
VI-10	Female	1	Low vision	Face-to-face
VI-9	Female	2	Low vision	Via E-mail



## **APPENDIX Q**

### **Details of students with intellectual disability' interview schedule**

Stage identification	Gender	Adolescent (1)/Adult (2)	Interview type
ID-2	Female	1	Face-to-face
ID-11	Male	1	Face-to-face
ID-3	Female	1	Face-to-face
ID-4	Female	1	Face-to-face
ID-5	Female	1	Face-to-face
ID-12	Male	1	Face-to-face
ID-13	Male	1	Face-to-face
ID-6	Female	1	Face-to-face
ID-1	Female	2	Face-to-face

## **APPENDIX R**

### **Details of teachers' interview schedule**

Stage 2 identification	Interview type	Gender
T-a	Face-to-face	Female
T-b	Face-to-face	Female
T-c	Via Mail	Female
T-d	Via Mail	Female
T-e	Face-to-face	Female
T-f	Via Mail	Male
T-g	Via Mail	Female
T-h	Via Mail	Female

**APPENDIX S**

**Details of parents' interview schedule**

Stage 2 identification	Interview type	Gender
P-a	Via Mail	Female
P-b	Via Mail	Female
P-c	Via Mail	Male
P-d	Via Mail	Female
P-e	Via E-Mail	Female
P-f	Via Mail	Female
P-g	Via Mail	Female
P-h	Via Mail	Male
P-i	Via Mail	Female
P-j	Via Mail	Female

## APPENDIX T

### University of Adelaide Ethics Clearance



RESEARCH BRANCH  
RESEARCH ETHICS AND COMPLIANCE UNIT

SABINE SCHREIBER  
SECRETARY  
HUMAN RESEARCH ETHICS COMMITTEE  
THE UNIVERSITY OF ADELAIDE  
SA 5005  
AUSTRALIA

TELEPHONE +61 8 8303 6026  
FACSIMILE +61 8 8363 7325  
email: sabine.schreiber@adelaide.edu.au  
CRICOS Provider Number 00123M

5 July 2010

Dr CR Velde  
School of Education

Dear Dr Velde

**PROJECT NO:** *Insights into self concept and test anxiety: adolescents and young adults with either vision impairment or intellectual disability in South Australia*  
**H-052-2010**

I write to advise you that the Human Research Ethics Committee has approved the above project. Please refer to the enclosed endorsement sheet for further details and conditions that may be applicable to this approval.

Approval is current for one year. The expiry date for this project is: 31 July 2011

Where possible, participants taking part in the study should be given a copy of the Information Sheet and the signed Consent Form to retain.

Please note that any changes to the project which might affect its continued ethical acceptability will invalidate the project's approval. In such cases an amended protocol must be submitted to the Committee for further approval. It is a condition of approval that you immediately report anything which might warrant review of ethical approval including (a) serious or unexpected adverse effects on participants (b) proposed changes in the protocol; and (c) unforeseen events that might affect continued ethical acceptability of the project. It is also a condition of approval that you inform the Committee, giving reasons, if the project is discontinued before the expected date of completion.

A reporting form is available from the Committee's website. This may be used to renew ethical approval or report on project status including completion.

Yours sincerely

 Professor Garrett Cullity  
Convener  
Human Research Ethics Committee



RESEARCH BRANCH  
RESEARCH ETHICS AND COMPLIANCE UNIT

SABINE SCHREIBER  
SECRETARY  
HUMAN RESEARCH ETHICS COMMITTEE  
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email: sabina.schreiber@adelaide.edu.au  
CRICOS Provider Number 00123A

Applicant: Dr CR Velde  
Department: School of Education  
Project Title: *Insights into self concept and test anxiety: adolescents and young adults with either vision impairment or intellectual disability in South Australia*

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THE UNIVERSITY OF ADELAIDE HUMAN RESEARCH ETHICS COMMITTEE

**Project No:** H-052-2010 **RM No:** 0000010239

APPROVED for the period until: 31 July 2011

Thank you for the revised ethics application dated 9.6.10. It is noted that this project will be conducted by Poulomee Datta, PhD candidate.

Refer also to the accompanying letter setting out requirements applying to approval.

Professor Garrett Cully  
Convenor  
Human Research Ethics Committee

Date: 1 JUL 2010

Page 1 of 1

N.B. This letter was addressed to Dr. C.R. Velde who was the Principal Supervisor at the beginning of the candidature.

## APPENDIX U

### Department for Education and Child Development (DECD) Ethics Clearance

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**Government of South Australia**

Department of Education and  
Children's Services

Policy Directorate  
Education Centre  
Level 8/31 Flinders Street  
Adelaide 5000  
South Australia

Tel: 8226 0119  
Fax: 8226 7839

DECS CS/10/256.5

14 July 2010

Dear Principal/Director/Site Manager

The research project titled *"Insights into Self Concept and Test Anxiety: students with vision impairment and intellectual disability in South Australia"* conducted by Ms Poulomee Datta from Adelaide University has been reviewed centrally and granted approval for access to DECS sites. However, the researcher will still need your agreement to proceed with this research at your site.

Once approval has been given at the local level, it is important to ensure that the researchers fulfil their responsibilities in obtaining informed consent as agreed, that individuals' confidentiality is preserved, and that safety precautions are in place.

Researchers are encouraged to provide feedback to sites used in their research, and you may want to make this one of the conditions for accessing your site. To ensure maximum benefits to DECS, researchers are also asked to supply the department with a copy of their final report, which will be circulated to interested staff and then made available to DECS educators for future reference.

Please contact Jeffrey Stotter on (08) 8226 0119 for further clarification if required, or to obtain a copy of the final report.

Yours sincerely

**Ben Temperly**  
EXECUTIVE DIRECTOR  
POLICY DIRECTORATE

**APPENDIX V**

**Mandatory Notifications Training Certificate**



Certificate of participation

This is to certify that

**Poulomee Datta**

---

Completed

**Responding to abuse and neglect  
Education and care training 2009–2011**

Introduction  
Session 1 – Responding to concerns  
Session 2 – Barriers to recognizing abuse and neglect  
Session 3 – Professional practice  
Session 4 – Understanding trauma  
Session 5 – Definitions and indicators of abuse and neglect  
Session 6 – Responding to children's disclosures  
Session 7 – Information sharing  
Session 8 – Making contact with the Child Abuse Report Line

Date of training completed: **14 December 2009**

Name of trainer: **Dawn Carpenter**  
Name of trainer: **Bruno Timpani**  
*Families SA approved      Education and Care trained*

Employee ID #:  
Teachers Registration  
Board registration #:

Trainer's signature:  
  
Trainer's signature:

(MNT09-36)

 **Government of South Australia**  
Department of Education and  
Children's Services



## APPENDIX W

### Police Clearance Certificate

5 February 2010



Government of South Australia

Department for Families  
and Communities

Screening & Licensing Branch  
Organisational Development Division

Level 4, 44 Pirie Street, Adelaide SA 5000  
GPO Box 292, Adelaide SA 5001  
DX 115

Telephone: 1300 321 592  
Facsimile: 1300 669 622  
www.dfc.sa.gov.au

Poulomee DATTA  
4/213 Young Street  
UNLEY SA 5061

Dear Poulomee,

#### National Criminal History Record Check and Screening Assessment

##### Poulomee DATTA - 5 August 1980

As a result of the recent National Criminal History Record Check and Screening Assessment I am pleased to advise you that you have been cleared to work with children, vulnerable adults and recipients of Aged Care Services pursuant to paragraph 63-1 of the Aged Care Act 1997 (Cth).

Criminal History assessments are conducted in accordance with the guidelines published pursuant to Section 8A of the Children's Protection Act 1993 (SA) and, where applicable, the Aged Care Act 1997 (Cth).

The Australian standards suggest that National Criminal History Record Checks should be valid for up to three years. However, individual organisations may have their own policies which define the timeframes that checks remain valid. Should you be found guilty of a serious offence in the interim this may affect your eligibility to continue working with children, vulnerable adults and recipients of Aged Care Services.

Please do not hesitate to contact the Screening & Licensing Branch on 1300 321 592 if you have any questions about the screening process.

Yours sincerely

Nigel Laity  
Manager  
Screening and Licensing Branch



## **APPENDIX X**

### **Validity Scores**

#### **Inconsistent Responding (INC)**

The Inconsistent Responding (INC) score indicates “whether there is an unusually wide discrepancy in the individual’s responses to pairs of items with similar content-pairs of items such as ‘I am an attractive person’ and ‘I look fine just the way I am’. Such a discrepancy is often due to haphazard or careless responding. It may, on the other hand, reflect some peculiarity in the individual’s life circumstances that is referred to by the content of particular item pairs” (Fitts & Warren, 2003, p. 15). In either case, unusually high INC scores greater than or equal to 70T indicate that an individual’s TSCS: 2 profile should be interpreted with caution (Fitts & Warren, 2003). The following table presents the T-scores for Inconsistent Responding for the female and male students with vision impairment and those with intellectual disability.

### Overview of T- scores for Inconsistent Responding

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
70	59	56	80
50	62	56	46
50	50	46	42
33	67	42	42
42	53	59	32
57	53	54	54
70	70	54	46
56	50	50	42
59	50	37	56
59	37	54	33
42	37		
46	50		
54			

V.I. = Students with vision impairment  
 I.D. = Students with intellectual disability

The table indicates that 85% of the female students with vision impairment and 92% of the male students with vision impairment obtained INC scores below 70T. The remaining 15% of the female students with vision impairment and 8% of the male students with vision impairment scored INC scores equal to 70T.

The table also indicates that 100% of the female students with intellectual disability and 90% of the male students with intellectual disability obtained INC scores below 70T. The remaining 10% of the male students with intellectual disability scored INC scores greater than 70T.

INC scores below 70T indicate that the students' response patterns are consistent and considered to be valid (Fitts & Warren, 2003). Therefore, the responses of the great majority of students with vision impairment and those with intellectual disability in this study are reliable and valid.

### **Self-Criticism (SC)**

The items that contribute to the Self-Criticism (SC) score "are all mildly derogatory statements, such as 'I get angry sometimes'- common frailties that most people would admit to when responding candidly" (Fitts & Warren, 2003, p. 15). If the SC score is 40T or lower, it means that the individual denies most of these statements and thus obtains such a low score is being defensive and making a deliberate effort to present a favourable picture of himself or herself (Fitts & Warren, 2003). A low SC score is a sign that further investigation, perhaps through interview questions or study of the respondents, should be initiated (Fitts & Warren, 2003).

A score between 40T and 70T, on the other hand generally indicates a normal, healthy openness and capacity for self-criticism (Fitts & Warren, 2003). A high SC score, near the upper boundary of the normal limits may reflect an actual predominance of maladaptive behaviours, such as rudeness, lying or excessive irritability, and it signals an unusual candour or dwelling on personal faults (Fitts & Warren, 2003). The

following table presents the T-scores for Self-Criticism for the female and male students with vision impairment and those with intellectual disability.

**Overview of T- scores for Self-Criticism**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
71	51	53	42
40	30	42	55
40	49	45	39
42	43	42	45
49	37	31	45
33	31	41	38
62	33	41	51
45	38	38	41
58	41	41	37
60	49	45	45
60	39		
41	42		
41			

V.I. = Students with vision impairment  
 I.D. = Students with intellectual disability

The table indicates that 85% of the female students with vision impairment and 50% of the male students with vision impairment obtained SC scores between 40T and 70T.

The remaining 50% of the male students with vision impairment scored SC scores below 40T. Out of the remaining 15% of the female students with vision impairment, 7.5% scored below 40T and the other 7.5% scored above 70T.

The table also indicates that 80% of the female students with intellectual disability and 70% of the male students with intellectual disability obtained SC scores between 40T and 70T. The remaining 20% of the female students with intellectual disability and 30% of the male students with intellectual disability scored SC scores below 40T.

To sum up, in line with Fitts and Warren (2003) it can be interpreted that students who obtained SC scores between 40T to 70T are not trying to appear unusually positive or negative in their self-description. On the other hand, as stated by Fitts and Warren (2003), students with SC scores lower than 40T are somewhat defensive in their self-description. A low SC score does not, of course, prove 'faking good', because the rare angelic individual may be describing his or her typical behaviour (Fitts & Warren, 2003). Finally, students with high SC scores beyond 70T tend to focus more on their failings. It means that these students are unusually willing to highlight their personal faults. These students are highly candid individuals (Fitts & Warren, 2003).

### **Faking Good (FG)**

Stanwyck and Garrison (1982) as cited in Fitts and Warren (2003) developed the Faking Good (FG) score by requesting that college students deliberately 'fake good' as if they were applying for a fictitious job and wished to present a favourable impression. The items that best discriminated between student responses in the faking condition and those of students given the standard instructions were selected to contribute to the FG score. These items included statements such as 'I have a healthy body' and 'I consider

myself a sloppy person'. Thus, "the scale is an indicator of the tendency to project a falsely positive self-concept" (Fitts & Warren, 2003, p. 20). A FG score of 70T or above indicates a possibly invalid protocol (Fitts & Warren, 2003). The following table presents the T-scores for Faking Good for the female and male students with vision impairment and those with intellectual disability.

### Overview of T- scores for Faking Good

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
31	45	45	45
48	34	51	42
39	47	42	45
34	57	48	36
31	51	59	33
47	56	33	29
28	53	36	27
51	28	44	36
51	39	36	32
51	28	36	42
41	32		
31	32		
31			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability

The table indicates that 100% of the female students with vision impairment and 100% of the male students with vision impairment obtained FG scores below 70T.

The table also indicates that 100% of the female students with intellectual disability and 100% of the male students with intellectual disability also obtained FG scores below 70T.

The FG scores of the students, according to Fitts and Warren (2003) do not indicate a conscious attempt to present themselves in an unusually positive and favourable light and thus are valid.

### **Response Distribution (RD)**

The Response Distribution (RD) score is calculated by counting the number of extreme responses circled by the individual. This score is highly correlated with the pattern of the individual's responses as distributed across all five available response options for each TSCS: 2 item. It is interpreted as a measure of certainty about the way one sees oneself. A high RD score greater than or equal to 60T indicates that the individual is very definite in describing himself or herself, whereas a low score less than or equal to 40T reveals the opposite (Fitts & Warren, 2003).

An extremely high RD score greater than or equal to 70T may indicate a stereotyped or polarized set of responses. Individuals with extremely high RD scores have chosen a large number of 'Always False' or 'Always True' responses. They do not show much of the typical qualifying or tempering of responses that is usually found. Instead they show either extreme definiteness of response or almost a flippant and impulsive response pattern (Fitts & Warren, 2003). The following table presents the T-scores for Response

Distribution for the female and male students with vision impairment and those with intellectual disability.

**Overview of T- scores for Response Distribution**

Female V.I. (N=13)	Male V.I. (N=12)	Female I.D. (N=10)	Male I.D. (N=10)
52	53	65	48
45	52	50	21
26	53	36	26
20	52	26	30
52	54	40	26
59	53	31	29
55	62	29	30
59	26	35	31
47	28	28	34
54	30	30	21
38	20		
20	26		
29			

V.I. = Students with vision impairment  
I.D. = Students with intellectual disability



The table indicates that 62% of the female students with vision impairment and 50% of the male students with vision impairment obtained RD scores between 40T and 60T. The remaining 38% of the female students with vision impairment scored RD scores below 40T. Out of the remaining 50% of the male students with vision impairment, 42% scored below 40T and the other 8% scored above 60T; however, below 70T.

The table also indicates that 20% of the female students with intellectual disability and 10% of the male students with intellectual disability obtained RD scores between 40T and 60T. The remaining 90% of the male students with intellectual disability scored RD scores below 40T. Out of the remaining 80% of the female students with intellectual disability, 70% scored below 40T and 10% scored above 60T; however, below 70T.

Students who obtained RD scores between 40T and 60T are in the average range, according to Fitts and Warren (2003). The findings presented above indicate that the responses of these students are not unusually extreme. It can be interpreted according to the Manual of Fitts and Warren (2003) that students who obtained RD scores below 40T are being defensive and guarded and avoid committing themselves by employing the 'Partly False and Partly True' response. By not committing to either 'Mostly True' or 'Mostly False' responses for large numbers of items, these students are showing indecision or extreme guardedness. Students who obtained RD scores above 60T; however, below 70T reflect a somewhat higher level of certainty than is expressed by most people (Fitts & Warren, 2003).

## APPENDIX Y

### **Stage 2 Interviews: Six examples of Interview Transcripts**

Student with vision impairment (VI-4)

- 1) I am still trying to maintain a healthy lifestyle by drinking water, walking with my dog but need to focus on outdoor activities such as sports or going to a gym. Public transport can be suitable for me to go and not depend on others to take me places from a car.
  
- 2) Good student behaviour I believe is when I am organized, punctual, kind and friendly to those other students around me.  
Bad student behaviour I believe is when I am in a bad mood, feeling negative, isolate myself from others, being late and not finishing the work from school due to my disability.
  
- 3) I am described as:

Quiet	Artistic
Shy	Short-Tempered
Funny	Sad
Happy	Kind
Caring	Friendly
  
- 4) I try to solve a problem but if it does not work out, I ask either my mum or dad to help me fix it. I find that most of my problems can be easily fixed because the majority of it leads to money. Other problems are personal, which can be very difficult.
  
- 5) My stepdad is a gambler who goes to work but gambles with his money at a club or Poker. My mum is the same and if either I or my 20-year-old brother does not listen to her, she threatens us to get out of the house. My 20-year-old

brother James is a Poker Dealer at a casino and he has a girl friend. My 11-year old brother Ricky is a violent child with no respect.

6) Older People

Children

I would like to mix with other people except that a car is a barrier which I don't have and it does affect my opportunity to interact with more people.

7) I get excited and willing to learn about a topic as much as I can. The more I learn the experienced I become.

8) Nervous

Afraid

Impatient

While taking an assessment, I can over do the talking when not supposed to and my fingers sweat because I feel afraid of being assessed by another person. Sometimes I get anxious, depending on how I study. If I don't study enough, then I get nervous. If I learn to focus and calm down, I will be able to take a test without anxiety.

9) My support teacher has helped me a lot because she told me to take a few deep breaths before acting and just smile throughout life because it builds confidence. She is understanding and sympathetic whenever I discuss problems, no matter what the problem is and it is this good rapport and trust with her that helps me to solve my problems.

10) No because my family will never change and trying to change others for their own benefit. As much as I love my family, they need to understand that people cannot change and they need to act more maturely.

- 11) I think it is gone great, trying to talk to different kinds of people out there. I still need to adapt into many different environments and be careful on what I'm saying around other people.
  
- 12) Yes it has helped me a lot and in future, I will always remember to:  
Have confidence  
Think before acting  
Always showing a smile on my face.
  
- 14) Yes, it has I feel confident on taking a test or an exam. I am willing to study much further and if not, I will always remember the support from my friends and experienced doctors such as therapists and counsellors.

END

---

Parent of student with vision impairment (P-a)

- 1) I feel my child should be exercising more by going to gyms, walks etc. She prefers more to stay indoors and play computer games due to her vision loss. Though I encourage her to go outdoors, I feel somewhere she is lagging behind than other due to her VI.
  
- 2) I feel my child is morally good and is always keen to show good manners. Sometimes due to her VI she gets bullied and she disrupts classroom and disturbs others. But that is purely for her VI.
  
- 3) My child is quite sensitive and reactive to others, especially if anyone shows her sympathy due to her vision impairment. I feel she is not that outgoing compared

to other teenagers of her age. Nevertheless, she is very comfortable in a known group.

- 4) My child needs help while solving his problems, assistance from me or from his teachers. I feel at his school his peers should be educated more about his condition and then probably he can seek help from them. Teachers should be looking into it.
- 5) Well, I share a good and positive relationship with my daughter with vision impairment. I feel that my son is somewhat insensitive towards my daughter, especially towards her visual needs. Sometimes, I have seen my son getting impatient towards my daughter.
- 6) I would say her social life is somewhat weird. She is shy and embarrassed to interact with new people as she thinks her vision deficiency could make her an object of bullying. Help from teachers and peers could help her to do away with this shyness.
- 7) I feel my daughter is cautious about learning new tasks and sometimes she may interpret failure quite easily. The school, her teachers should help her more in this regard.
- 8) Yes, sometimes she is nervous during tests because she feels she might not be able to perform to the best of her ability. She needs to meditate, learn and

practice her content well and special modifications in the form of extra time should be there to help her.

9) Yes, sometimes in the form of availing these services like access to softwares for students with VI has helped her to solve her problems.

10) Yes, it has caused me to worry less as I know that my child is being taken care of by the support services.

11) Maybe sometimes the support services have taught her the non verbal communication cues but a lot more needs to be done to help her to interact more with her peers.

12) Yes, definitely the support services have helped my daughter in her learning. Use of the magnifier and enlarged print facilities has made learning for her easier and convenient.

13) Yes, certainly because the support in the form of large prints and magnifiers have helped her to take a test at par with her friends.

END

---

Teacher of students with vision impairment (T-c)

- 1) Yes, I feel students with VI are able to maintain a physically healthy lifestyle.  
Most of the time the influence of the home makes a big difference.
- 2) Possibly some students with congenital VI are better behaved. Those that have acquired VI cannot accept their disability and it is then that they show up with all sorts of disruptive and immoral behaviour in class.
- 3) Most of the students with VI can behave well however, the support of the family is required in such instances. Students who are completely blind tend to be more quiet and withdrawn, students with low vision are in complete denial of their situation and very easily they can set in depression and frustration as well.
- 4) Students with VI often seek help from parents and teachers, as they require it.
- 5) I have found students with VI are happy in family relationships if there are no step parents. A lot also depends on how the parents behave with them. If they are turned down on several family matters due to their disability, that can strain and severe family relationships.
- 6) I believe students who have acquired VI as a result of an accident or injury cannot come in terms with their situation and they are the ones who simply can't interact well with peers. Students who are blind generally tend to be quiet and shy anticipating that they might not be able to contribute substantially in a group and so they think the best option would be is to be out of the group.
- 7) Students with VI generally need to be provided with more support to make learning easier for them. The right kind of helpful and supportive environment in the class helps them to learn faster and better.

- 8) Students with VI can become quite nervous in tests sometimes due to their visual deficiency. A lot depends on whether the test is in the required format for them, for example in the large print or Braille format. These things can sometimes unnecessarily worry students with VI before a test/ examination.
- 9) Yes, the support has helped students with VI to tackle problems to some extent on their own as support teachers work on a one on one basis for them, adapted technologies and supportive devices have definitely made their life easier than what it could have been without these.
- 10) Yes, in some way I feel that the support has indirectly influenced students with VI's family life since they are well guided at school, they do not take homework home and that leaves them with some quality time to spend with parents.
- 11) Well, the support have taught VI students how and when to behave appropriately in public. However, in spite of the support the main thing that is important is that sighted students should receive training to include VI students in their day to day activities.
- 12) Definitely the support arrangements have helped the students to be more independent as we provide them with adapted technologies, one on one support and training in life skills and mobility and orientation which has immensely helped students with VI to be more independent in life.
- 13) The support services have helped students with VI to take an exam because we provide them extra time during tests and sometimes they may choose to have a scribe for an exam. So VI students know that they are being catered and looked after in an exam which helps them to reduce the stress of tests.

END



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Student with intellectual disability (ID-2)

- 1) Hmm, yes, I try to exercise, swim, eat good food and diet.
- 2) My good student behaviour - be kind to my family & friends  
My bad student behaviour – nothing.
- 3) Go out, cheerful person.
- 4) Tell teacher & friends. Yes, I find problems difficult.
- 5) I share a good relationship with my family. Mum works till 5 p.m. We go out on the weekends. I have 3 sisters & 1 brother & we share good relationship.
- 6) I don't like to mix with people. I think I can interact well with friends by behaving well with them.
- 7) I can learn new things by playing / practicing new games which helps my memory.
- 8) I feel nervous & anxious because it is a test & I will be marked. A little more preparation can help.
- 9) By making more friends & meeting new people & by going to mainstream.
- 10) No
- 11) Yes, my support teacher has helped me to go to the mainstream and make friends.
- 12) Help in science better.
- 13) Yes, by helping me with math, doing Arts.

END

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Parent of student with intellectual disability (P-g)

- 1) I literally have to be after my daughter so that she can maintain a good lifestyle.  
She is not independent and in most instances needs to be reminded to go for jogs and swimming.

- 2) Hmm, I would say fairly not so much at home. I am not sure about her moral behaviour at school but at home she sometimes engages in temper tantrums. I feel she is not able to exercise the right kind of control over her behaviour, mainly due to her mood swings which she is not aware of.
- 3) My child is quite sensitive and reactive to others, especially if anyone bullies her due to her ID. I feel she is apprehensive to meet new people because of her impairment and stays comfortable in a known company.
- 4) Hmm, that's a difficult one. Okay, I would say in all possibilities my child needs assistance to solve her problems. I feel the school Counsellor should play a positive role in this regard. The school Counsellor should help her by providing her strategies to get her problems solved.
- 5) Well, my husband and I share a comfortable and understanding relationship with my daughter. My elder daughter is disabled too and she can understand the younger one quite well. They get along well and we seem to be a happy family.
- 6) I think my daughter's social life is quite boring. She is often left out when her friends are into some parties. Schools should do something about this. They should be involving her more in group discussions and pairing activities.
- 7) My daughter has got the urge in her to learn and grasp new concepts. However, she interprets that she would meet failure too often and gives up the task at hand

too easily. She is often easily distracted. Teachers should be more consistent and have more patience in dealing with her. They should spend more time on her, on a one on one basis.

8) Yes, sometimes she is nervous during tests because she feels she might not be able to perform to her optimum capacity. The fear of failure is quite strong in her and it could be because of her ID. Teachers and schools need to work more on students with ID before a test or exam.

9) Yes, to some extent as the support teachers help her in many ways, she trusts in her support teacher which has allowed her solve problems in a better way.

10) The support services had no impact on my child's family life.

11) No, it's not doing any good to her social life.

12) I don't think that the support has helped her to be independent because she is quite dependent on me. She does not get that much help from her teachers to work independently and get things sorted out on her own.

13) No, support services have no impact on her taking an exam and schools have not done much in this regard.

END

Teacher of students with intellectual disability (T-h)

- 1) I would say, partially they are able to maintain a fit lifestyle because some parents I know are conscious and feed them with good and balanced diet. However, the students with ID are not able to do their parts by going for walks, runs or engaging in sports at school. They simply prefer to sit back and do indoor activities.
- 2) Some students with ID are not able to exhibit good moral behaviour in class. But that does not mean that they are immoral in their daily lives. Their disruptive behaviour is most of the times due to mood swings and their ID and during these times that they are most often not aware of how they behave. Sometimes, their behaviour (whether positively or negatively) depends a lot on the ability of their peers to show proper and positive behaviour towards them.
- 3) Students with ID can be responsible, understanding only with extra and caring effort from teachers. Some teachers are not trained enough to handle students with ID and that is when the problem comes in. In such situations, the teacher can't handle the student with ID and the student in turn engages in hostile and insensitive behaviour in class. But this is occasional and may not always be the case.
- 4) Students with ID need help and assistance from others to solve their problems. They do not have the skills and expertise to get things sorted out on its own. Providing them with real life case examples is a good way to teach them to handle problems.

- 5) Students with ID usually share a healthy relationship and are close with family members. One student I remember had a very hostile home environment because his mother was divorced and he felt that his step father simply hated him and didn't bother for his well being at all.
- 6) Students with ID generally prefer to remain in their own known groups and prefer not to explore new possibilities with other new faces. They might fear that their disability might not be welcomed by everyone and they simply cannot get along well with new people. What I have seen that students with ID can interact well with peers if they are in a special setting with only children with disabilities. However, in mainstream setting students with ID do not have that social bond with non-disabled students.
- 7) Students with ID generally take more time and require extra effort to learn new things and this could make their whole learning journey frustrating and boring as well. More one on one dealings and hand on activities can make new learning comparatively easier for them.
- 8) Generally, I have seen all students with ID unnecessarily worry about doing assignments. This is because the success rate is so low in them as compared to their peers, that they fear that they might meet with failure too often and too quickly.
- 9) To some extent I would say yes, support services have helped students with ID to solve their problems because we provide them real life problems in class and then teach them skills to solve it. But I would say that we cannot cover every

type of real life problems in class and there are situations when students with ID in real life problems don't know what to do and whom to turn to.

- 10) I can't think of a single instance when the support had any influence on the student's family life.
- 11) Though we try to integrate the students with ID with the mainstream peers, but however in actual classroom situation it is not that easy to achieve this. What I have observed is that some students with ID have a good social network online; they have a wide range of quality friends there but not in the classroom. I think to achieve the ideal situation in classrooms, we need more staff and more funding from the government towards students with special needs, I mean students with ID.
- 12) Well, I feel that the support arrangements have to some extent made the lives of students with ID more independent by imbibing independent and daily living skills. Many adaptive resources and technology has assisted students with ID to study more independently which the support teachers teach students how to use it most effectively.
- 13) Yes, to some extent the support has helped students with ID in their performance in an assignment as often we provide them that extra help, specialized resources for students with ID to work effectively and constant support and assistance from staff all year round.

END

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